

"Wheat in Bloom"



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JUNIOR CO-OPERATIVE VARIETY TESTS

Published by
Saskatchewan Co-operative Producers Limited
Head Office, Regina
March, 1948

WHEAT IN BLOOM

The highly magnified photograph which appears on the cover of this booklet is an unusual study of wheat in blossom. Without the undeniable evidence produced here by the camera, it would be difficult to realize the delicate beauty of this familiar plant.

Our sincere acknowledgments are due to the Extension Service of the United States Department of Agriculture which supplied the photograph, and to the management of the Co-op Grain Quarterly magazine of St. Paul, Minnesota, who made it available for our use.

JUNIOR CO-OPERATIVE VARIETY TESTS

WHEAT, OATS, BARLEY and FLAX



1947

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SASKATCHEWAN CO-OPERATIVE PRODUCERS LIMITED
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FOREWORD

By the President of Saskatchewan Co-operative Producers Limited

THE production of cereal grains in Western Canada has always been a hazardous occupation. During recent years, however, a number of scientific advances have been made in an attempt to reduce the risks involved in farming. Among the most important developments has been an extensive plant breeding program through which many new varieties have been introduced. Some have not proven suitable but a few, such as Thatcher wheat and Royal flax, have brought untold benefits to Western farmers. Scientifically planned variety tests play an important part in determining whether or not these new varieties have the qualities necessary to stand up under the rigorous conditions which exist on the Prairies. It is our hope that the information gathered from the project carried out by the Saskatchewan Wheat Pool in 1947 will prove of benefit to the farmers of Western Canada.

The contents of this report represent the results of the thirteenth annual variety testing program conducted by the Saskatchewan Wheat Pool. During the past year more than three hundred individual tests were carried out and twenty-three varieties were used in the experiment. The boys and girls who supervised individual tests are to be congratulated for the fine job they have done. The success of the project was due, in large part, to the initiative and enthusiasm displayed by the Junior Co-operators and it is my pleasure, on behalf of the Saskatchewan Wheat Pool organization, to thank each and every one of them for the assistance they have given.

J. H. WESSON.

INTRODUCTION

THE variety testing program conducted by the Saskatchewan Wheat Pool in 1947 consisted of four projects; namely, wheat, oats, barley and flax.

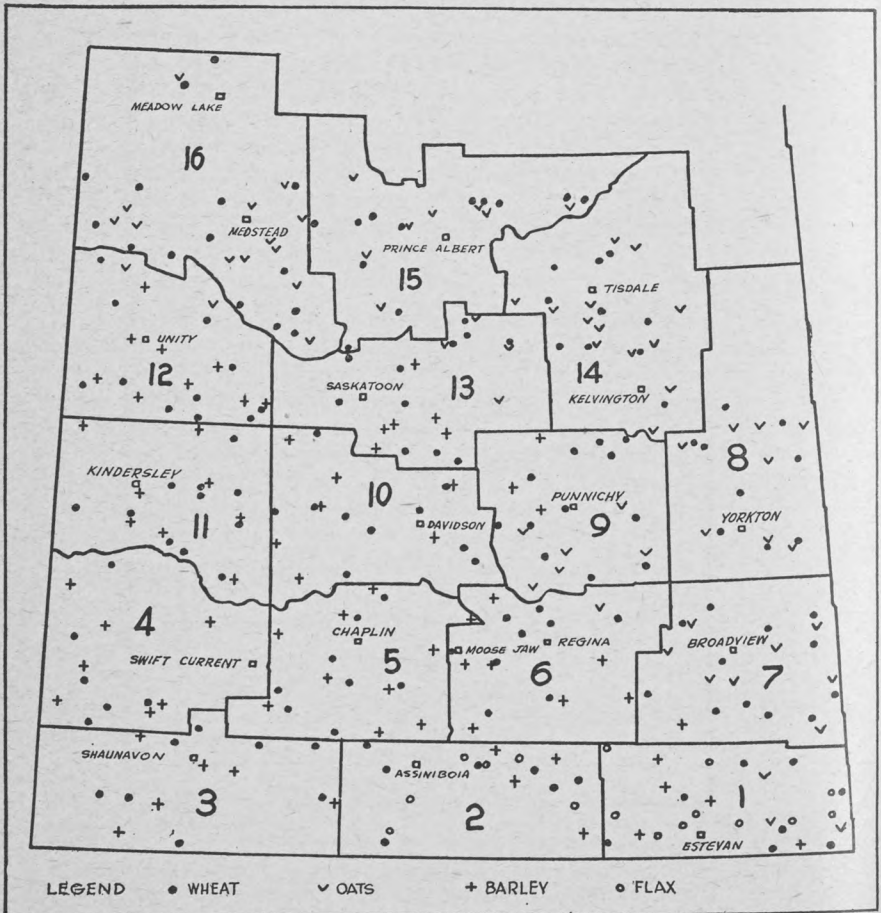
The wheat project included 159 individual tests which were distributed throughout the entire grain growing region of Saskatchewan. Four varieties were used in each test. In the southern and western areas, where damage by sawflies has become a major problem, the resistant varieties Rescue, Pelissier and Stewart were tested, with Thatcher being used as the standard of comparison.

In the northern and eastern areas, where early maturity and disease resistance are characteristics of major importance, the varieties Saunders, Redman and Regent were used with Thatcher again being the standard variety.

The oat project included sixty-six individual tests and these were distributed throughout the northern and eastern districts. The varieties Ajax, Beacon, Exeter, Garry, VC-15 and VC-30 were tested.

The barley project included seventy-three individual tests located throughout the southern and western areas of the Province. The varieties Plush, Gem, Titan, Tregal, Vantage and Velvon were used.

MAP SHOWING LOCATION OF TESTS



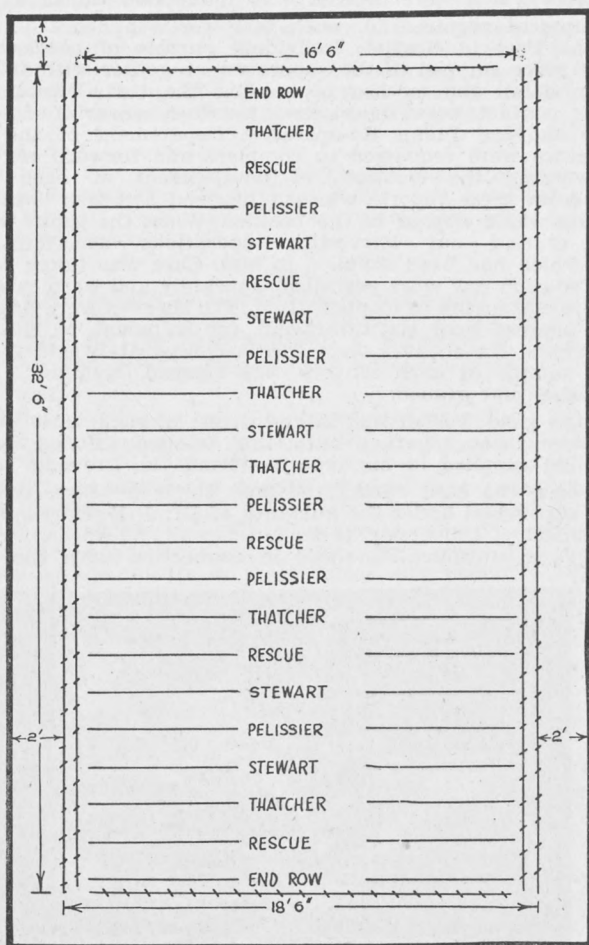
A limited flax project with sixteen individual tests was conducted in Wheat Pool Districts 1 and 2 where in recent years the acreage sown to flax has increased considerably. The varieties used were Dakota, Victory, Royal and Rocket.

Description of Tests

A diagram of the wheat test appears on page 5. Twenty rows were sown, allowing for five replicates of each variety. The rows were 16½ feet long and were placed 18 inches apart. For protection purposes, an extra buffer row was placed at each end of the test and the entire project was surrounded by a winter wheat border.

The barley and oat tests were sown in a similar manner. Each test consisted of eighteen plots of two rows each. The rows, each 16½ feet in length, were placed 1 foot apart. The eighteen plots allowed for each of the six varieties to be replicated three times throughout the test. One of the rows in each plot was used for testing purposes while the other served as a protection to the test row. For additional protection the entire test was surrounded by a winter wheat border.

PLAN OF WHEAT TEST



The crossed lines represent border rows of winter wheat. A two-foot pathway was left between the winter wheat border and the surrounding field crop. The oats, barley and flax tests were laid out in a similar manner except that 36 rows were sown in the coarse grains tests and 40 rows in the flax project.

The flax test plan was identical to that used for barley and oats except that forty rows were sown, allowing the four varieties to be replicated five times throughout the test.

Organization of the Testing Program

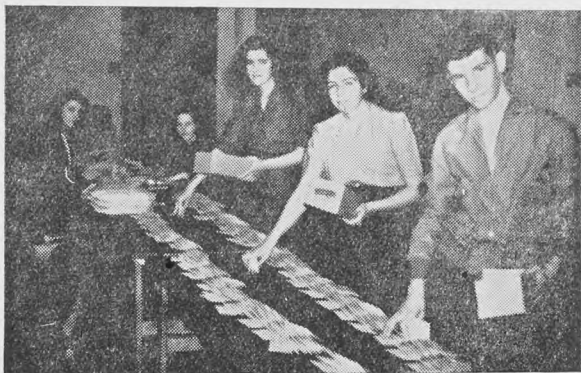
To be completely successful, a variety testing program should include tests conducted under many different conditions of soil and climate. An attempt was made, therefore, to place two individual tests within each of the 165 sub-districts into which the Province has been divided for Wheat Pool administration. Although, in one or two areas some difficulty was experienced in securing the services of the required number of supervisors, the general distribution of tests was excellent. (See map, page 4).

As in past years, the tests were supervised by carefully selected Junior Co-operators. The boys and girls for each sub-district were chosen by the Wheat Pool delegate who represented that particular territory. In order to ensure accurate results, it was necessary for Wheat Pool delegates to select as test supervisors, boys and girls who were both interested and dependable. In this regard it should be stated that the young people who were chosen for this work have carried out with enthusiasm and efficiency the many tasks which were necessary to make the project a success.

The equipment required for each test was supplied from Head Office of the Wheat Pool in Regina. Individual parcels of seed were carefully prepared and were shipped to the supervisors together with full instructions explaining in detail the method of seeding the test. During the growing season close contact was maintained between each of the 314 Junior Co-operators and the Junior Co-operative Department of the Wheat Pool. The co-operators were requested to complete and forward regular progress reports concerning the comparative development of each variety. The information from these reports was summarized and was used as the basis for the results which appear in the booklet. When the grain was ripe, each co-operator carried out harvesting operations according to special instructions which had been supplied to him. Care was taken to ensure that the returns for each row were parcelled separately and were carefully marked in order to prevent errors in identification. The sheaves were dried and turned over to the nearest Pool elevator agent for shipment to Head Office. On arrival at Regina, the sheaves were threshed separately and the yields were recorded. A sample of each variety was cleaned, weighed in pounds per measured bushel and graded.

Finally the yield, bushel weight and grade of each variety were entered on a summary sheet together with the detailed information which the co-operator had supplied in his reports during the growing season.

As has been the case during the past thirteen years, the project was planned and supervised under the guidance of Dr. J. B. Harrington, Professor of Field Husbandry, University of Saskatchewan, Saskatoon. The threshing, summarizing and statistical analysis in connection with the project were



ASSEMBLING PARCELS OF SEED AT HEAD OFFICE OF THE WHEAT POOL IN REGINA

carried out at Head Office of the Saskatchewan Wheat Pool under the direction and supervision of I. K. Mumford.

FACTS TO BE REMEMBERED IN READING AND STUDYING RESULTS

The results of tests carried out during a single year should not be considered as conclusive evidence to be used in the selection of a variety. Weather conditions vary considerably from year to year and a variety which gives a favorable performance in any one year may not do well under conditions which exist the following year. In choosing a variety, therefore, the farmer is advised to study the results of several years' tests and in this regard the pamphlet entitled, "Varieties of Grain Crops for Saskatchewan, 1948," is recommended. This pamphlet is compiled by the Saskatchewan Cereal Variety Committee and a copy has been supplied to each Pool elevator agent for the use of farmers in his district. Additional copies may be obtained free of charge from the University of Saskatchewan, Saskatoon; the Provincial Department of Agriculture, Regina or Saskatchewan Co-operative Producers Limited, Regina.

Necessary Difference

The statistical term "Necessary Difference" is used in different parts of this report. The "Necessary Difference" is calculated by applying an approved statistical formula to the yield results of each individual test. The result of the calculation is shown in bushels per acre and it represents the amount by which a variety must outyield another variety in the test in order to be considered significantly superior in yield.

Straw Strength

Straw strength was reported on the basis 10-0. If the plants in a plot were straight and erect the strength of straw was recorded as 10. If the straw showed signs of weakness a lower figure was used depending upon the degree of weakness observed.

Neck Strength

This term appears only in the section of the report dealing with barley tests. Neck strength was recorded on the basis of 1, 2, 3, where 1 indicated a strong neck holding the head upright, 2 indicated a neck of medium strength, while 3 was used when the neck appeared weak.

Individual Results

The results of individual tests appear in the following tables: Wheat, No. 24; Oats, No. 35; Barley, No. 45; Flax, No. 47. These results are arranged according to Wheat Pool districts (illustrated on page 4) so that a reader who wishes to study the results of tests in a particular area may readily locate the tests in which he is interested. It should be emphasized that the results of a single test give an accurate comparison of the varieties only under the conditions which exist on the farm where the test is located. An examination of the results in these tables will reveal the fact that the varieties do not show similar relationships in all areas of the Province. Results may differ widely, even in tests grown relatively close together. This variation may be due to several causes, most important of which are differences in soil type, moisture conditions and date of seeding.

Grading Remarks

In determining commercial grades, bushel weight is a very important factor. However, there are many other factors which may lower the grade of a sample.

In the individual results, the column headed "Grading Remarks" contains abbreviations which are used to denote any adverse characteristics other than bushel weight, which appear in the sample of grain.

The following abbreviations have been used to indicate the various defects:

Bl.—Bleached
S.Bl.—Some Bleached
B.Bl.—Badly Bleached
D.—Dark
F.—Frosted
S.F.—Slightly Frosted
B.F.—Badly Frosted
G.—Green

S.G.—Slightly Green
V.G.—Very Green
H.—Heated
S.H.—Slightly Heated
I.—Immature
S.I.—Slightly Immature
M.—Mildewed
Pk.—Pink

S.Pk.—Slightly Pink
Sh.—Shrunken
St.—Stained
Stch.—Starchy
S.Stch.—Slightly Starchy
V.Stch.—Very Starchy
W.—Weathered
W.S.—Weather Stained

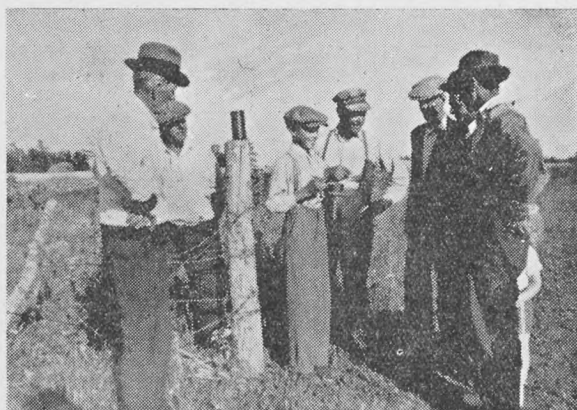
ANALYSIS OF DATA

The individual wheat tests and the oat tests were grouped for analysis on the basis of cereal variety zones. These zones, the boundaries of which were laid out by the Saskatchewan Cereal Variety Committee, are described below and illustrated on pages 36 and 37. Each zone represents an area within which the soil is of the same general type and where climatic conditions are normally somewhat similar. It should be stressed, however, that local conditions within a zone sometimes vary considerably from the average of the zone.

Due to unusual climatic conditions within the region where barley tests were conducted during 1947, these tests were grouped by areas which were arranged on the basis of climatic conditions and test yields.

Cereal Variety Zones—Prevailing Soil Type and Climatic Condition

- 1A Brown soils; subject to frequent droughts.
- 1B Brown soils; subject to more frequent droughts than 1A.
- 2A Dark brown soils; subject to occasional droughts; better moisture conditions than 1A.
- 2B Dark brown soils; slightly cooler than 2A.
- 2C Dark brown soils; bench land; cooler; shorter frost-free season and better moisture conditions than 1A.
- 2D Dark brown soils; higher elevation and distinctly shorter frost-free season than 2B.
- 2E Dark brown heavy clay soils; more drought resistance than 2A and 2B.
- 2F Brown and dark brown heavy clay soils; more drought resistance than 1A and adjoining 2B.
- 3A Black soils; better moisture conditions than 2A.
- 3B Deep black and degraded black soils; shorter frost-free season and better moisture conditions than 3A.
- 3C Black soils; better moisture conditions than 2B and cooler than 3A.
- 3D Deep black soils; better moisture conditions than 3E.
- 3E Black soils; shorter frost-free season and better moisture conditions than 2D.
- 3F Degraded black soils; better moisture conditions and shorter frost-free season than 3D.
- 3H Degraded black soils; distinctly short frost-free season.
- 4A Grey and strongly degraded black soils; short frost-free season.
- 4B Grey soils; distinctly short frost-free season; better moisture conditions than 3E.



WALTER ILNESKY OF RANGER DISCUSSING THE USE OF THE RAIN GAUGE

RAINFALL

As the amount of rainfall during the growing season has a far greater influence upon the yields than the amount of annual precipitation, the rainfall shown in the following table covers only the months representing the growing period of wheat in Saskatchewan.

TABLE NO. 1.—THIS TABLE SHOWS THE NUMBER OF POINTS REPORTING AND THE AVERAGE MONTHLY PRECIPITATION DURING THE PERIOD APRIL-AUGUST, SUMMARIZED BY CEREAL VARIETY ZONES.

AVERAGE TOTAL PRECIPITATION										
Cereal Variety Zone	*	April	*	May	*	June	*	July	*	August
1A.....	17	.85	19	1.12	18	3.17	16	1.21	17	2.25
1B.....	2	1.19	3	.95	3	2.93	3	.57	2	2.04
2A.....	4	.61	4	1.20	3	5.41	4	.67	3	3.88
2B (south).....	4	.79	5	1.05	6	2.85	6	2.06	6	3.42
2B (north).....	5	.83	7	.75	8	2.53	6	.92	8	2.48
2C & 2D.....	4	.47	5	.62	5	2.43	5	1.18	4	3.00
2E.....	4	.64	5	.83	5	4.36	6	1.27	4	3.28
2F.....	2	.33	1	.39	2	2.41	2	1.44	2	1.76
3A.....	3	.76	3	.73	3	6.47	3	.53	3	3.45
3B&3C (east)...	7	.58	7	.71	6	6.59	7	1.49	6	3.60
3B&3C (west)...	5	.64	7	1.04	7	4.30	6	1.21	7	3.13
3E.....	5	.57	5	.54	5	1.40	5	1.18	5	3.63
3F.....	1	1.00	1	1.00	1	4.70	—	—	1	3.80
4A & 4B.....	5	.81	4	.66	4	.93	5	1.12	5	3.52

*Number of stations reporting.

Note: The precipitation records from which the above table was compiled were supplied by the Statistics Branch, Provincial Department of Agriculture.



—Courtesy Saskatchewan Film Board

INSPECTING THE VARIETY TEST OF ELVIN AXTEN, MOOSOMIN

WHEAT TESTS

DESCRIPTION OF VARIETIES

Thatcher was produced from a cross made in 1921 at the Minnesota Agricultural Experiment Station, St. Paul, between (Marquis X Iumillo) X (Marquis X Kanred). From one of the original crosses (Marquis X Iumillo), a bread wheat type was obtained with a considerable degree of resistance to stem rust under field conditions. From the Marquis X Kanred cross, a spring wheat was selected of good milling and baking quality that was immune to several forms of black stem rust and had high yielding ability. Thatcher originated from a cross between these two. Thatcher is resistant to most forms of black stem rust and to loose smut, but is susceptible to leaf rust and covered smut.

Rescue originated from a cross made in 1938 at the Cereal Division, Central Experimental Farm, Ottawa, between Apex and S-615. The resultant population was transferred to the Dominion Experimental Station at Swift Current, Saskatchewan, for exploitation. Here plant breeders in co-operation with the Division of Entomology, Science Service, produced Rescue. It is the first bread wheat variety to be introduced which is capable of resisting the attacks of the wheat stem sawfly to a high degree. Rescue is resistant to stem rust but susceptible to leaf rust and covered smut and moderately susceptible to rootrot.

Pelissier is a durum variety which was introduced into the United States from Algeria about the year 1900 and was later brought to Canada. Pelissier is susceptible to stem rust, leaf rust, covered smut and rootrot. It is resistant to sawfly infestation. Pelissier is inferior to Mindum in quality and is not eligible to grade higher than 3 C.W.

Stewart was developed at the North Dakota Agricultural College as the result of backcrossing Mindum X Vernal with Mindum. It is resistant to stem and leaf rust but is moderately susceptible to rootrot and is susceptible to covered smut. Stewart is resistant to sawfly infestation. It is considered equal in quality to Mindum and is eligible to grade 1 C.W.

Saunders is an early maturing variety which originated from a cross made at the Central Experimental Farm, Ottawa, in 1938, between an early ripening hybrid (Hope X Reward) and Thatcher. Saunders is resistant to stem rust and loose smut. It is moderately resistant to covered smut and rootrot and moderately susceptible to leaf rust. Saunders has been licensed and is eligible for the highest grades.

Redman is the result of a cross between Regent and Canus made in 1934 by the Cereal Division staff located at the Dominion Laboratory of Cereal Breeding, Winnipeg, Manitoba. Canus was developed from a cross between Marquis and Kanred. Redman is resistant to stem rust, leaf rust and covered smut. It ranks with Marquis and Thatcher in milling and baking quality.

Regent was obtained as the result of a cross, made at the Dominion Laboratory of Cereal Breeding, Winnipeg, between H-44 and Reward. Regent is resistant to stem rust, leaf rust and covered smut but is susceptible to loose smut.

GRAIN YIELD

Table No. 2 shows the average yield of each variety in the different cereal variety zones. In Zones 1A to 2F inclusive, where two durums and two bread wheat varieties were tested, the yields appeared to follow a definite trend which depended largely upon growing conditions. In Zones 1A, 2A, 2B (South) and 2E under relatively good moisture conditions, the durum varieties proved definitely superior to the bread wheats in yielding ability. In Zones 1B and 1A*, 2B (North), 2C and 2D, and 2F, however, where yields were generally lighter, the bread wheats compared favorably with the durums. In these areas the only marked difference in yield occurred in Zone 2B (North) where **Thatcher** yielded significantly more than **Stewart** and exceeded **Rescue** by an amount which equalled the necessary difference for the zone. Of the two durums, **Pelissier** generally outyielded **Stewart**

but only in Zone 1A was the difference significant. Of the bread wheat varieties, Thatcher generally outyielded Rescue but in every zone except 2B (North) the differences in yields failed to equal the necessary differences for the zones.

In Zones 3A to 4B inclusive, where four bread wheat varieties were used, Thatcher proved superior in yielding ability. It excelled in three zones and tied with Saunders for first place in another. In the two remaining zones Thatcher came second. A general average of all tests shows that Redman ranked second in yielding ability. It outyielded all other varieties in two zones and placed second in three. Redman appeared to give its best performance in the areas adjacent to the Manitoba boundary. A general average of all tests shows that Saunders ranked third in yielding ability. In Zone group 4A and 4B Saunders tied with Thatcher for first place. In three zones, however, Saunders ranked third and in the remaining two areas it was outyielded by all other varieties. Although in no case were they outstanding, the yields of Saunders appeared more satisfactory in the northern areas than in the south. On a general average basis, Regent was outyielded by all other varieties. It produced the poorest yields in four areas and ranked third in the two remaining zones.

TABLE No. 2.—AVERAGE YIELDS IN BUSHELS PER ACRE SUMMARIZED BY CEREAL VARIETY ZONES AND GROUPED ZONES

Cereal Variety Zone	No. of Satisfactory Tests	Thatcher	Rescue	Pelissier	Stewart	Saunders	Redman	Regent	Necessary Difference in Bushels
1A.....	11	19.8	19.9	26.7	24.4	—	—	—	1.8
1B & 1A *.....	12	9.5	9.0	9.4	8.4	—	—	—	1.3
2A.....	7	15.1	14.8	21.0	21.6	—	—	—	2.7
2B (South).....	6	19.6	19.2	24.7	23.4	—	—	—	3.5
2B (North).....	6	8.7	7.6	8.0	7.1	—	—	—	1.1
2C & 2D.....	7	10.1	9.7	10.7	9.6	—	—	—	1.5
2E.....	4	24.3	22.8	28.4	29.3	—	—	—	5.3
2F.....	4	14.4	13.0	15.7	13.6	—	—	—	4.2
3A.....	6	16.1	—	—	—	13.5	17.8	14.3	2.0
3B & 3C (East).....	14	29.6	—	—	—	27.0	31.9	28.4	1.1
3B & 3C (West).....	13	25.4	—	—	—	22.4	22.8	21.5	1.2
3D.....	Nil	—	—	—	—	—	—	—	—
3E.....	17	11.0	—	—	—	10.2	10.2	9.7	.6
3F.....	4	22.7	—	—	—	20.4	21.7	20.0	1.9
4A & 4B.....	9	17.3	—	—	—	17.3	17.2	16.1	.7

1B & 1A *—Note—Tests conducted at Ormiston, Mankota, Hazenmore, Arbuthnot, Pambrun, Bayard, and Fiske in Zone 1A showed similar yield trends to the tests in Zone 1B and were included with the latter group for analysis.

DAYS FROM SOWING TO RIPENING

Table No. 3 shows the average number of days required by each variety to reach maturity in the different cereal variety zones. Zones 1A to 2F.—In every zone Thatcher and Rescue ripened somewhat earlier than the durum varieties. Of the two durums, Stewart was generally earlier than Pelissier. Of the two bread wheats, Thatcher ripened earlier than Rescue in most Areas. Zones 3A to 4B—Saunders generally ripened earlier than the other varieties, the exceptions being Zone 3A, where only slight differences appeared between the varieties, and Zone 3E, where Saunders ranked second to Thatcher.

TABLE No. 3.—AVERAGE NUMBER OF DAYS FROM SOWING TO RIPENING SUMMARIZED BY CEREAL VARIETY ZONES

Cereal Variety Zone	Thatcher	Rescue	Pelissier	Stewart	Saunders	Redman	Regent
1A.....	98.8	99.8	105.4	104.7	—	—	—
1B & 1A *.....	89.0	89.6	94.6	93.0	—	—	—
2A.....	100.4	100.2	105.6	105.0	—	—	—
2B (South).....	98.8	99.2	104.4	102.3	—	—	—
2B (North).....	96.8	98.0	102.4	102.4	—	—	—
2C & 2D.....	103.8	105.0	110.0	107.8	—	—	—
2E.....	94.2	94.7	100.7	100.7	—	—	—
2F.....	97.0	96.7	102.3	101.3	—	—	—
3A.....	94.4	—	—	—	94.8	94.6	94.6
3B & 3C (East).....	96.3	—	—	—	94.3	96.0	95.5
3B & 3C (West).....	95.6	—	—	—	94.9	95.4	95.3
3D.....	No satisfactory tests.						
3E.....	87.5	—	—	—	88.1	88.8	89.2
3F.....	89.2	—	—	—	88.5	89.7	89.7
4A & 4B.....	96.8	—	—	—	94.3	96.5	95.5

1B & 1A *—Note—Tests conducted at Ormiston, Mankota, Hazenmore, Arbuthnot, Pambrun, Bayard, and Fiske in Zone 1A showed similar yield trends to the tests in Zone 1B and were included with the latter group for analysis.

HEIGHT OF PLANTS

Table No. 4 gives the average height of plants for the different varieties by cereal variety zones. Zones 1A to 2F—The durums were somewhat taller than the bread wheats in every case. Zones 3A to 4B—Only slight variations in height were evident and all varieties proved satisfactory in this characteristic.

TABLE No. 4.—AVERAGE HEIGHT OF PLANTS IN INCHES SUMMARIZED BY CEREAL VARIETY ZONES

Cereal Variety Zone	Thatcher	Rescue	Pelissier	Stewart	Saunders	Redman	Regent
1A.....	28.9	30.0	33.7	32.8	—	—	—
1B & 1A *.....	21.8	22.4	26.0	24.9	—	—	—
2A.....	27.0	27.4	31.4	31.6	—	—	—
2B (South).....	26.6	26.8	31.3	31.8	—	—	—
2B (North).....	20.2	19.6	20.8	20.8	—	—	—
2C & 2D.....	21.6	22.8	25.6	25.0	—	—	—
2E.....	29.7	31.0	36.2	36.7	—	—	—
2F.....	25.7	25.3	29.3	28.0	—	—	—
3A.....	32.8	—	—	—	31.6	32.4	31.8
3B & 3C (East).....	34.7	—	—	—	33.4	35.0	35.2
3B & 3C (West).....	28.4	—	—	—	28.1	28.5	28.9
3D.....	No satisfactory tests.						—
3E.....	19.0	—	—	—	20.0	19.9	19.8
3F.....	22.7	—	—	—	21.3	22.3	22.0
4A & 4B.....	21.5	—	—	—	22.0	22.8	22.0

STRAW STRENGTH

Table No. 5 shows the average straw strength of the different varieties by cereal variety zones. Straw strength was reported on the basis 0-10, the figure 10 being recorded if all the plants in a plot were straight and erect. If the plants leaned, a lower figure was shown depending upon the amount of lean. Zones 1A to 2F—Generally, the variations in straw strength were only of a minor nature. An average of all tests, however, shows that Pelissier had a slight advantage in this characteristic. Pelissier was followed by Stewart, Rescue and Thatcher in that order. The comparative weakness of Thatcher was undoubtedly due, in part, to its susceptibility to sawfly infestation and not to any particular weak straw characteristics. Zones 3A to 4B—A survey of this area shows that Thatcher and Redman were generally slightly superior in straw strength with Regent third and Saunders fourth.

TABLE No. 5.—AVERAGE STRAW STRENGTH OF PLANTS ON THE BASIS 10 (STRONG) 0 (WEAK) SUMMARIZED BY CEREAL VARIETY ZONES

Cereal Variety Zone	Thatcher	Rescue	Pelissier	Stewart	Saunders	Redman	Regent
1A.....	8.7	8.8	9.3	9.1	—	—	—
1B & 1A *.....	7.5	8.0	8.3	7.9	—	—	—
2A.....	7.5	8.7	9.5	9.2	—	—	—
2B (South).....	9.5	9.3	9.4	9.1	—	—	—
2B (North).....	8.6	9.1	9.0	8.4	—	—	—
2C & 2D.....	9.4	9.2	9.0	8.8	—	—	—
2E.....	8.2	7.1	8.7	9.3	—	—	—
2F.....	8.7	8.9	8.9	8.9	—	—	—
3A.....	8.6	—	—	—	8.1	8.3	8.4
3B & 3C (East).....	8.9	—	—	—	8.6	8.9	8.7
3B & 3C (West).....	9.0	—	—	—	8.9	9.0	9.0
3D.....	No satisfactory tests.						—
3E.....	8.2	—	—	—	8.7	8.9	8.5
3F.....	9.3	—	—	—	8.5	8.6	8.8
4A & 4B.....	9.2	—	—	—	9.2	9.3	9.3

WEIGHT PER MEASURED BUSHEL

Table No. 6 shows the average bushel weight attained by each variety in the different cereal variety zones. Zones 1A to 2F—The durum varieties produced somewhat better bushel weight than the bread wheats in every zone with Stewart proving superior to Pelissier in most cases. Of the bread wheat varieties, Rescue exceeded Thatcher without exception. Zones 3A to 4B—Thatcher showed the best bushel weight in most of these zones but was followed very closely by Regent. Redman had a slight advantage over

Saunders in the three southerly zones of this area but the situation was reversed in the north where Saunders showed definite superiority to the Redman variety.

TABLE No. 6.—AVERAGE WEIGHT PER MEASURED BUSHEL SUMMARIZED BY CEREAL VARIETY ZONES

Cereal Variety Zone	Thatcher	Rescue	Pelissier	Stewart	Saunders	Redman	Regent
1A.....	59.1	60.4	64.0	64.6	—	—	—
1B & 1A*.....	55.6	56.6	61.2	61.6	—	—	—
2A.....	58.3	59.5	64.5	64.8	—	—	—
2B (South).....	57.3	58.5	60.5	62.1	—	—	—
2B (North).....	56.0	58.5	62.3	61.5	—	—	—
2C & 2D.....	60.0	60.2	62.2	62.5	—	—	—
2E.....	59.5	59.7	63.7	64.2	—	—	—
2F.....	57.5	58.7	62.7	62.2	—	—	—
3A.....	59.1	—	—	—	57.1	58.7	58.7
3B & 3C (East).....	61.3	—	—	—	60.0	61.0	61.9
3B & 3C (West).....	60.7	—	—	—	59.8	59.8	60.5
3D.....	No satisfactory tests.						
3E.....	59.0	—	—	—	58.6	57.9	58.5
3F.....	61.7	—	—	—	61.7	60.7	61.7
4A & 4B.....	62.5	—	—	—	62.7	61.8	62.6

1B & 1A*—Note—Tests conducted at Ormiston, Mankota, Hazenmore, Arbuthnot, Pambrun, Bayard and Fiske in Zone 1A showed similar yield trends to the tests in Zone 1B and were included with the latter group for analysis.

COMMERCIAL GRADES

Tables No. 7 and 8 show the commercial grades attained by each variety on a percentage basis. On reference to Table No. 7, it will be observed that the **Rescue** variety was superior to Thatcher in grading ability. This superiority was due, in most cases, to the higher bushel weight of Rescue. Of the durum varieties, **Stewart** exceeded Pelissier by a wide margin. This was due mainly to the fact that Pelissier is not eligible to grade higher than No. 3 C.W. Amber Durum. Table No. 8 shows the commercial grades for Zones 3A to 4B. **Thatcher** excelled but was followed closely by Regent. Saunders and Redman ranked third and fourth respectively.

TABLE NO. 7.—COMMERCIAL GRADES IN PERCENTAGE (ZONES 1A-2F)

	1 Hd.	1°	2°	3°	4°	4 Sp.	No. 5	5 Sp.	No. 6	6 Sp.	Fd.
Thatcher.....	—	16.7	26.6	23.3	10.0	16.7	—	5.0	—	1.7	—
Rescue.....	—	23.3	41.6	15.0	6.7	11.7	—	—	—	—	1.7
						1 C.W.	2 C.W.	3 C.W.	4 C.W.	5 C.W.	6 C.W.
Pelissier.....					—	—	91.7	5.0	3.3	—	—
Stewart.....					48.4	33.3	15.0	3.3	—	—	—

TABLE No. 8.—COMMERCIAL GRADES IN PERCENTAGE (ZONES 3A-4B)

	1 Hd.	1°	2°	3°	4°	4 Sp.	No. 5	5 Sp.	No. 6	6 Sp.	Fd.
Thatcher.....	—	21.8	23.2	34.8	11.6	5.8	1.4	1.4	—	—	—
Saunders.....	—	15.9	27.5	24.6	20.3	4.4	4.4	2.9	—	—	—
Redman.....	—	8.7	20.3	39.1	18.8	1.5	7.2	4.4	—	—	—
Regent.....	—	21.7	21.7	33.3	13.1	4.4	2.9	2.9	—	—	—

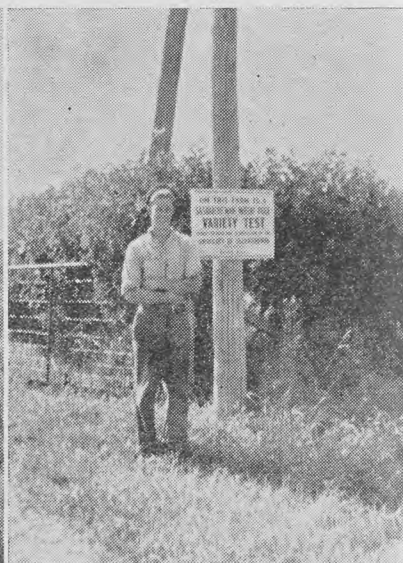
PROTEIN CONTENT

Table No. 9 shows the protein content for each variety in the different cereal variety zones. The protein analyses were carried out at the University of Saskatchewan under the supervision of Dr. E. Y. Spencer, Associate Professor of Chemistry. Zones 1A to 2F—Generally, **Thatcher** produced the highest protein content. **Rescue** ranked second and was followed by **Stewart** in third place. In most zones, **Pelissier** proved inferior to the other varieties. Zones 3A to 4B—**Regent** was high in protein in every zone except 3A. **Thatcher** ranked second on an average basis. **Saunders** and **Redman** were practically equal in protein except in Zone 3A where Saunders proved superior.

TABLE NO. 9.—PROTEIN CONTENT IN PERCENTAGE SUMMARIZED BY CEREAL VARIETY ZONES

Cereal Variety Zone	Thatcher	Rescue	Pelissier	Stewart	Saunders	Redman	Regent
1A.....	15.9	15.1	14.4	14.9	—	—	—
1B & 1A *.....	17.1	16.5	16.8	17.1	—	—	—
2A.....	14.2	13.5	12.8	12.7	—	—	—
2B (South).....	15.8	15.5	15.0	15.4	—	—	—
2B (North).....	17.7	17.5	17.0	17.6	—	—	—
2C & 2D.....	15.5	15.2	14.6	14.8	—	—	—
2E.....	16.0	15.8	15.2	15.0	—	—	—
2F.....	16.8	16.3	15.9	16.4	—	—	—
3A.....	13.5	—	—	—	14.0	13.7	13.9
3B & 3C (East).....	13.6	—	—	—	13.6	13.5	13.9
3B & 3C (West).....	15.6	—	—	—	15.3	15.2	15.9
3D.....	No satisfactory tests						—
3E.....	16.6	—	—	—	16.3	16.4	16.9
3F.....	15.2	—	—	—	15.1	15.3	16.2
4A & 4B.....	14.6	—	—	—	14.2	14.3	15.2

1B & 1A*—Note: Tests conducted at Ormiston, Mankota, Hazenmore, Arbuthnot, Pambrun, Bayard and Fiske in Zone 1A showed similar yield trends to the tests in Zone 1B and were included with the latter group for analysis.



**LEFT: ANGELINE MARTIN OF ORMISTON AND HER WHEAT TEST
RIGHT: EVERETT KING OF ROCANVILLE**

SUMMARIZATION ACCORDING TO CEREAL VARIETY ZONES

In comparing the performances of the different varieties, the reader is advised to study, not only the results of the individual test in his immediate district but also the results of all tests conducted under soil and climatic conditions similar to those which occurred on his own farm. For the reader's convenience, the results of all tests conducted in each area where conditions were similar have been grouped and averaged. The basic areas used for grouping tests have generally been the Cereal Variety Zones which are illustrated on page 37 and described in the "Analysis of Data" on page 8.

By referring to the zone summary for the area in which his farm is located, the reader may observe, for each variety, the results as calculated from the average of all tests in the zone.

In some cases, because of unusual climatic differences, a zone has been divided into two sections for analysis. In other cases, where the number of tests within a zone was insufficient to give an accurate average, the tests from two zones where soil and climatic conditions are similar, were grouped together.

In studying the data under the heading of "General Yield Performance During Past Eight Years," the reader will find it helpful to know the number of varieties tested in each year. This information is given below and the reader may refer to it when studying varietal performances for a zone. Five varieties were tested in each zone in 1940, three varieties in 1941, six varieties in 1942, four varieties in 1943, six varieties in 1944, none in 1945, four in 1946 and four in each zone in 1947.

CEREAL VARIETY ZONE 1A

TABLE NO. 10.—SUMMARIZED RESULTS FOR ZONE 1A

(11 satisfactory tests)

	Thatcher	Rescue	Pelissier	Stewart
Yield in bushels per acre.....	19.8	19.9	26.7	24.4
Days from seeding to ripening.....	98.8	99.8	105.4	104.7
Height of plants in inches.....	28.9	30.0	33.7	32.8
Straw strength.....	8.7	8.8	9.3	9.1
Bushel weight in pounds.....	59.1	60.4	64.0	64.6
Commercial grades in percentage:				
1 Nor. & 1 C.W.....	36.4	36.4	—	81.8
2 Nor. & 2 C.W.....	18.1	63.6	—	18.2
3 Nor. & 3 C.W.....	36.4	—	100.0	—
4 Nor. & 4 C.W.....	—	—	—	—
4 Spec.....	9.1	—	—	—

Necessary difference—1.8 bushels.

Table No. 10. **Pelissier** outyielded all other varieties significantly. It excelled in height and straw strength and proved highly satisfactory in bushel weight. However, late maturity and inferior grading ability are serious disadvantages characteristic to the Pelissier variety. Although second in yield, **Stewart** excelled in bushel weight and commercial grades. It was somewhat later in maturing than the bread wheats but proved satisfactory in other characteristics. The slightly poorer yield of **Stewart**, when compared with Pelissier, is offset considerably by its excellent grades and this variety should be carefully considered in making a durum choice for use in Zone 1A. **Rescue** and **Thatcher** were practically equal in yield but **Rescue** exceeded **Thatcher** in bushel weight and grading ability. **Thatcher** matured earlier than the other varieties, but appeared inferior in straw strength. Its susceptibility to sawfly infestation is undoubtedly responsible in part for the apparent weakness in straw and the lower yield of the Thatcher variety.

General Yield Performance During Past Eight Years

Pelissier has been tested three times, outyielding all other varieties twice and ranking fourth in 1944. **Stewart** was used for the first time in 1947. **Rescue** has been tested twice, ranking second to **Thatcher** in 1946 but slightly superior to **Thatcher** in 1947. **Thatcher** has been used during seven of the past eight years, outyielding all other varieties each year with the exceptions of 1944 when it ranked second by a narrow margin, and 1947 when it placed fourth. Although the susceptibility of **Thatcher** to sawfly infestation is an unfavorable feature, its excellent yield record in the past is worthy of consideration.

CEREAL VARIETY ZONE GROUP 1B and 1A*

TABLE NO. 11.—SUMMARIZED RESULTS FOR ZONE GROUP 1B AND 1A*

(12 satisfactory tests)

	Thatcher	Rescue	Pelissier	Stewart
Yield in bushels per acre.....	9.5	9.0	9.4	8.4
Days from seeding to ripening.....	89.0	89.6	94.6	93.0
Height of plants in inches.....	21.8	22.4	26.0	24.9
Straw strength.....	7.5	8.0	8.3	7.9
Bushel weight in pounds.....	55.6	56.6	61.2	61.6
Commercial grades in percentage:				
1 Nor. & 1 C.W.....	8.3	16.7	—	25.0
2 Nor. & 2 C.W.....	33.4	16.7	—	41.7
3 Nor. & 3 C.W.....	—	16.7	83.4	33.3
4 Nor. & 4 C.W.....	8.3	—	8.3	—
4 Spec.....	25.0	41.6	—	—
No. 5 & 5 C.W.....	—	—	8.3	—
5 Spec.....	25.0	—	—	—
Feed.....	—	8.3	—	—

Necessary difference—1.3 bushels.

Note: 1B & 1A*—Tests conducted at Ormiston, Mankota, Hazenmore, Arbuthnot, Pambrun, Bayard and Fiske in Zone 1A showed similar yield trends to the tests in Zone 1B and were included with the latter group for analysis.

Table No. 11. Compared with Zone 1A, the yields in this group were somewhat inferior and it is interesting to note that under these conditions the bread wheat varieties equalled the durums in yielding ability. **Thatcher** ranked first but failed to outyield any variety by a significant margin. **Thatcher** matured early but proved inferior in bushel weight, straw strength and height. **Rescue** was slightly later in maturing but exceeded **Thatcher** in most other characteristics. **Rescue** and the durum varieties proved somewhat more resistant than **Thatcher** to sawfly infestation. Of the durums, **Pelissier** was superior in height, straw strength and yield. **Stewart** excelled in bushel weight and grading ability and ripened slightly earlier than **Pelissier**.

General Yield Performance During Past Eight Years

Thatcher has been used in Wheat Pool tests during seven of the past eight years, yielding first in two years, second in four years and last in 1941. **Pelissier** has been tested three times, ranking first in yield in 1942, fourth in 1944 and second in 1947. **Rescue** has been tested during each of the past two years, outyielding all other varieties in 1946 and ranking third in 1947. **Stewart** was tested for the first time in 1947.

CEREAL VARIETY ZONE 2A

TABLE NO. 12.—SUMMARIZED RESULTS FOR ZONE 2A
(7 satisfactory tests)

	Thatcher	Rescue	Pelissier	Stewart
Yield in bushels per acre.....	15.1	14.8	21.0	21.6
Days from seeding to ripening.....	100.4	100.2	105.6	105.0
Height of plants in inches.....	27.0	27.4	31.4	31.6
Straw strength.....	7.5	8.7	9.5	9.2
Bushel weight in pounds.....	58.3	59.5	64.5	64.8
Commercial grades in percentage:				
1 Nor. & 1 C.W.....	—	28.6	—	42.8
2 Nor. & 2 C.W.....	42.8	42.8	—	42.8
3 Nor. & 3 C.W.....	28.6	28.6	100.0	14.4
4 Nor. & 4 C.W.....	14.3	—	—	—
4 Spec.....	14.3	—	—	—

Necessary difference—2.7 bushels.

Table No 12. **Stewart** was high in yield, exceeding **Thatcher** and **Rescue** by differences which are significant. Although somewhat later than the bread wheats in maturing, **Stewart** proved highly satisfactory in other characteristics. On the basis of these results, **Stewart** would appear to be a suitable durum variety for use in this zone. **Pelissier** proved satisfactory in yield and straw strength but was late in maturing. The poor grading ability of **Pelissier** offsets its favorable characteristics and this fact must be considered in the choice of a variety. **Thatcher** ranked third in yield but failed to outyield **Rescue** significantly. **Thatcher** compared favorably in height and earliness but proved inferior to **Rescue** in bushel weight, commercial grades and straw strength. Once again, its apparent weakness of straw may be due largely to sawfly infestation which caused considerably more damage in **Thatcher** than in the other varieties.

General Yield Performance During Past Eight Years

Stewart was included in Wheat Pool tests for the first time in 1947. **Pelissier** has been tested three times. It was high yielder in 1942, ranked third in 1944 and second in 1947. **Thatcher** has given an excellent performance over a seven year period. It outyielded all other varieties four times and in two years ranked second. In 1947 **Thatcher** dropped to third place but on the basis of its longtime performance this variety is still one of the most suitable for use in Zone 2A. **Rescue** has been used in tests during the past two years, ranking third in 1946 and last in 1947. In neither year was **Thatcher** significantly superior to **Rescue** in yield and the sawfly resistance of the latter variety should be considered in making a choice.

CEREAL VARIETY ZONE 2B (South)

TABLE NO. 13.—SUMMARIZED RESULTS FOR ZONE 2B (SOUTH)
(6 satisfactory tests)

	Thatcher	Rescue	Pelissier	Stewart
Yield in bushels per acre.....	19.6	19.2	24.7	23.4
Days from seeding to ripening.....	98.8	99.2	104.4	102.3
Height of plants in inches.....	26.6	26.8	31.3	31.8
Straw strength.....	9.5	9.3	9.4	9.1
Bushel weight in pounds.....	57.3	58.5	60.5	62.1
Commercial grades in percentage:				
1 Nor. & 1 C.W.....	14.3	14.3	—	42.8
2 Nor. & 2 C.W.....	—	14.3	—	28.6
3 Nor. & 3 C.W.....	57.1	14.3	71.4	—
4 Nor. & 4 C.W.....	—	42.8	14.3	28.6
4 Spec.....	28.6	14.3	—	—
No. 5 & 5 C.W.....	—	—	14.3	—

Necessary difference—3.5 bushels.

Table No. 13. In the southern area of Zone 2B where test yields were comparatively high, the durum varieties again significantly outyielded the bread wheats. **Pelissier** was high in yield but failed to exceed **Stewart** by the necessary difference. **Pelissier** held a slight margin over **Stewart** in straw strength but the latter variety excelled in bushel weight, grading ability and height. In addition, **Stewart** ripened two days earlier than **Pelissier**. On the basis of these results **Stewart** would appear to be the more satisfactory durum variety for use in this area, especially when its advantage in grading ability is considered. There appears to be little to choose between **Thatcher** and **Rescue**. **Thatcher** outyielded **Rescue** by a narrow margin, ripened earlier and showed slightly stronger straw. **Rescue**, however, was noticeably superior to **Thatcher** in bushel weight.

General Yield Performance During Past Eight Years

Pelissier has been tested in this area during three of the past eight years. In 1942 and 1947 **Pelissier** outyielded all other varieties and in 1944 it ranked third. **Stewart** was tested for the first time in 1947. It shows considerable promise for use in this region. **Thatcher** has given a good performance by placing first in four of the seven years during which it has been used. In the three remaining years, **Thatcher** ranked second in 1942 and 1943, and third in 1947. **Rescue** tied for third place in 1946 when it was significantly outyielded by **Thatcher**. It was outyielded by **Thatcher** again in 1947. On the basis of these results, it would appear that **Thatcher** remains the most suitable bread wheat variety for use in Zone 2B.

CEREAL VARIETY ZONE 2B (North)

TABLE NO. 14.—SUMMARIZED RESULTS FOR ZONE 2B (NORTH)
(6 satisfactory tests)

	Thatcher	Rescue	Pelissier	Stewart
Yield in bushels per acre.....	8.7	7.6	8.0	7.1
Days from seeding to ripening.....	96.8	98.0	102.4	102.4
Height of plants in inches.....	20.2	19.6	20.8	20.8
Straw strength.....	8.6	9.1	9.0	8.4
Bushel weight in pounds.....	56.0	58.5	62.3	61.5
Commercial grades in percentage:				
1 Nor. & 1 C.W.....	14.3	14.3	—	28.6
2 Nor. & 2 C.W.....	14.3	71.4	—	42.8
3 Nor. & 3 C.W.....	—	—	100.0	28.6
4 Nor. & 4 C.W.....	42.8	—	—	—
4 Spec.....	14.3	14.3	—	—
6 Spec.....	14.3	—	—	—

Necessary difference—1.1 bushels.

Table No. 14. Under the dry conditions which prevailed in this area **Thatcher** showed superior yielding ability. It outyielded **Stewart** significantly and exceeded **Rescue** by a difference equal to the necessary difference for the zone. **Thatcher** matured early and proved satisfactory in all other characteristics with the exception of bushel weight. **Pelissier** was second in yield but failed to exceed **Rescue** or **Stewart** significantly. Compared to **Stewart**, **Pelissier** was superior in bushel weight and straw strength. Once again, however, the relatively poor grades of the **Pelissier** variety are a

serious handicap. **Rescue** ranked third in yield, had shorter but stronger straw than **Thatcher**, and matured later than the standard variety. Although **Rescue** showed better bushel weight and commercial grades, it is doubtful if these characteristics are sufficient to offset the superior yield of **Thatcher**. **Stewart** was low in yield, comparatively weak in straw and late in maturity. Except for commercial grades, **Stewart** generally proved inferior to the **Pelissier** variety.

General Yield Results During Past Eight Years

Thatcher has been tested in this area during seven of the past eight years. It outyielded all other varieties five times and ranked second in 1942 and 1943. On the basis of these results **Thatcher** would appear to be most suitable for use in this area. **Pelissier** has been tested three times, ranking first in 1942, third in 1944 and second in 1947. **Rescue** was outyielded by all other varieties in 1946 and placed third in 1947. **Stewart**, used for the first time in 1947, was outyielded by all other varieties.

CEREAL VARIETY ZONE GROUP 2C and 2D

TABLE NO. 15.—SUMMARIZED RESULTS FOR ZONE GROUP 2C AND 2D
(7 satisfactory tests)

	Thatcher	Rescue	Pelissier	Stewart
Yield in bushels per acre.....	10.1	9.7	10.7	9.6
Days from seeding to ripening.....	103.8	105.0	110.0	107.8
Height of plants in inches.....	21.6	22.8	25.6	25.0
Straw strength.....	9.4	9.2	9.0	8.8
Bushel weight in pounds.....	60.0	60.2	62.2	62.5
Commercial grades in percentage:				
1 Nor. & 1 C.W.....	25.0	25.0	—	50.0
2 Nor. & 2 C.W.....	50.0	62.5	—	37.5
3 Nor. & 3 C.W.....	12.5	12.5	87.5	12.5
4 Nor. & 4 C.W.....	12.5	—	12.5	—

Necessary difference—1.5 bushels.

Table No. 15. **Pelissier** outyielded the other varieties in this area but in no case was the advantage of a significant nature. In other characteristics **Pelissier** generally proved inferior to **Stewart**. **Thatcher** was second in yield, but excelled in earliness and straw strength. Its bushel weight and grades proved satisfactory when compared to those of **Rescue**. In the bread wheat class, **Thatcher** appeared to have a slight advantage over **Rescue**, although the sawfly resistant characteristics of the latter variety are of importance in the zones under review. **Stewart** was low in yield but this was not significant. It ripened earlier than the other durum variety and its higher quality was much in evidence when commercial grades were compared.

General Yield Performance During Past Eight Years

Since 1940 **Pelissier** has been tested three times, outyielding all the other varieties twice and placing fifth in 1944. The yield record of **Pelissier** appears quite satisfactory but its inferior grading ability should be considered when the choice of a variety is being made. **Thatcher**, over a period of seven years, ranked first in yield four times and second in the remaining three years. **Rescue** has been used in Wheat Pool tests during the past two years and placed third both times. **Rescue** will be of considerable value for sawfly control in the area under review but the past record of **Thatcher** merits consideration in the choice of a bread wheat variety. **Stewart** has not been used in Wheat Pool tests prior to 1947.

CEREAL VARIETY ZONE 2E

TABLE NO. 16.—SUMMARIZED RESULTS FOR ZONE 2E
(4 satisfactory tests)

	Thatcher	Rescue	Pelissier	Stewart
Yield in bushels per acre.....	24.3	22.8	28.4	29.3
Days from seeding to ripening.....	94.2	94.7	100.7	100.7
Height of plants in inches.....	29.7	31.0	36.2	36.7
Straw strength.....	8.2	7.1	8.7	9.3
Bushel weight in pounds.....	59.5	59.7	63.7	64.2
Commercial grades in percentage:				
1 Nor. & 1 C.W.....	25.0	25.0	—	75.0
2 Nor. & 2 C.W.....	25.0	25.0	—	25.0
3 Nor. & 3 C.W.....	50.0	50.0	100.0	—

Necessary difference—5.3 bushels.

Table No. 16. **Stewart** outyielded all other varieties and excelled in bushel weight, straw strength and height. Compared with **Pelissier**, the commercial grades of **Stewart** were outstanding. The results of one year's test with a new variety are inconclusive but the excellent performance of **Stewart** in the past season merits consideration in the choice of a durum variety for use in this zone. **Pelissier** was second in yield and gave an otherwise satisfactory performance. Its limitation in grading ability, however, is a serious disadvantage. In the bread wheat class, **Thatcher** showed better yield, earlier maturity and stronger straw than **Rescue** and compared favorably with the latter variety in bushel weight and grades. Considering its long term record, there is little doubt that **Thatcher** remains the suitable bread wheat variety for use throughout most of this zone.

General Yield Performance During Past Eight Years

Pelissier has been tested three times in Zone 2E, ranking first in 1942, third in 1944 and second in 1947. In 1943 **Thatcher** was slightly outyielded and in 1947 it ranked third. In every other year since 1940, however, **Thatcher** has excelled in this area. **Rescue** has been tested during each of the past two years and on both occasions it was outyielded by all other varieties.

CEREAL VARIETY ZONE 2F

TABLE NO. 17.—SUMMARIZED RESULTS FOR ZONE 2F
(4 satisfactory tests)

	Thatcher	Rescue	Pelissier	Stewart
Yield in bushels per acre.....	14.4	13.0	15.7	13.6
Days from seeding to ripening.....	97.0	96.7	102.3	101.3
Height of plants in inches.....	25.7	25.3	29.3	28.0
Straw strength.....	8.7	8.9	8.9	8.9
Bushel weight in pounds.....	57.5	58.7	62.7	62.2
Commercial grades in percentage:				
1 Nor. & 1 C.W.....	—	25.0	—	50.0
2 Nor. & 2 C.W.....	25.0	25.0	—	25.0
3 Nor. & 3 C.W.....	25.0	25.0	100.0	25.0
4 Nor. & 4 C.W.....	—	25.0	—	—
4 Spec.....	50.0	—	—	—

Necessary difference—4.2 bushels.

Table No. 17. **Pelissier** was high in yield but failed to exceed any other variety by a significant margin. It excelled in height and bushel weight but its late maturity and inferior grading ability offset these advantages to some extent. **Thatcher** ranked second in yielding ability and was satisfactory in most other characteristics. The exceptions were bushel weight and commercial grades in which it proved inferior. **Stewart**, although third in yield, produced good bushel weight and commercial grades. It matured later than the bread wheats but was earlier than **Pelissier**. **Rescue** was low in yield but its comparatively good bushel weight and commercial grades, together with its sawfly resistant characteristics are features which should be considered in choosing a bread wheat variety for use in Zone 2F.

General Yield Performance During Past Eight Years

Pelissier has been tested during three years. In 1942 and 1947 it outyielded all other varieties but in 1944 it ranked third. Over a seven year period, **Thatcher** has placed first in yield five times and ranked second twice. This record indicates that **Thatcher** is a suitable variety for use throughout Zone 2F. **Stewart** was tested for the first time in 1947. **Rescue** has been used in this area during the past two years and has been outyielded by all other varieties on both occasions. Nevertheless, its sawfly resistant characteristic is of importance in this zone and should be considered when the choice of a variety is being made.

CEREAL VARIETY ZONE 3A

TABLE NO. 18.—SUMMARIZED RESULTS FOR ZONE 3A
(3 satisfactory tests)

	Thatcher	Saunders	Redman	Regent
Yield in bushels per acre.....	16.1	13.5	17.8	14.3
Days from seeding to ripening.....	94.4	94.8	94.6	94.6
Height of plants in inches.....	32.8	31.6	32.4	31.8
Straw strength.....	8.6	8.1	8.3	8.4
Bushel weight in pounds.....	59.1	57.1	58.7	58.7
Commercial grades in percentage: 1 Nor.....	—	—	—	—
2 Nor.....	25.0	25.0	25.0	25.0
3 Nor.....	37.5	—	25.0	37.5
4 Nor.....	25.0	37.5	37.5	25.0
4 Spec.....	12.5	12.5	—	—
No. 5.....	—	25.0	12.5	12.5

Necessary difference—2.0 bushels.

Table No. 18. **Redman** was high in yield, exceeding **Regent** and **Saunders** by differences which are significant. In all other characteristics **Redman** proved reasonably satisfactory. **Thatcher** excelled in bushel weight, straw strength, height and earliness. This outstanding performance, combined with satisfactory yield and commercial grades, makes **Thatcher** an excellent choice for continued use in Zone 3A. **Regent** was third in yield. Although it graded comparatively well, its general performance was not outstanding. **Saunders** was low in yield and proved inferior in all other characteristics but no definite conclusions should be drawn until further tests have been carried out with this variety. However, on the basis of this year's results, **Saunders** would not appear to be a satisfactory variety for use in Zone 3A.

General Yield Performance During Past Eight Years

Redman has been tested twice during the period under review and has outyielded all other varieties in both years. Its record indicates that **Redman** will prove an excellent choice for this zone. **Thatcher** has been used during seven of the past eight years. It outyielded all other varieties three times and placed second in the remaining four years. This variety will undoubtedly remain a suitable choice for Zone 3A. **Regent** has been tested six times during the period under review and has given only an average performance. **Saunders** was used for the first time in 1947.

CEREAL VARIETY ZONE GROUP 3B and 3C (East)

TABLE NO. 19.—SUMMARIZED RESULTS FOR ZONE GROUP 3B AND 3C (EAST)
(14 satisfactory tests)

	Thatcher	Saunders	Redman	Regent
Yield in bushels per acre.....	29.6	27.0	31.9	28.4
Days from seeding to ripening.....	96.3	94.3	96.0	95.5
Height of plants in inches.....	34.7	33.4	35.0	35.2
Straw strength.....	8.9	8.6	8.9	8.7
Bushel weight in pounds.....	61.3	60.0	61.0	61.9
Commercial grades in percentage: 1 Nor.....	17.6	11.8	5.9	17.6
2 Nor.....	17.6	23.5	17.6	23.5
3 Nor.....	52.9	35.3	41.2	41.3
4 Nor.....	11.9	29.4	29.4	17.6
4 Spec.....	—	—	—	—
No. 5.....	—	—	5.9	—

Necessary difference—1.1 bushels.

Table No. 19. For purposes of analysis Zones 3B and 3C were grouped together and the entire area thus formed was then divided into an eastern and western section. The table shown above refers to approximately the eastern half of the zone group. In this eastern section **Redman** outyielded all other varieties significantly. **Redman** proved slightly later than **Saunders** in ripening but was satisfactory in other characteristics. **Thatcher** ranked second in yield and gave a good general performance. **Regent** excelled in height, bushel weight and commercial grades but placed third in yielding ability. **Saunders** was outyielded by all other varieties and failed to show any outstanding qualities with the exception of early maturity. Although **Redman** is a relatively new variety, its excellent performance under good

moisture conditions in this area should be taken into consideration when the choice of a variety is being made.

General Yield Performance During Past Eight Years

Redman has been used for the past two years in tests throughout this area. In 1946 it ranked third in yield and in 1947 it placed first. Although it may not prove suitable for use throughout the entire area comprised by Zones 3B and 3C, it would appear on the basis of this year's results that **Redman** may be of considerable value to farmers in the eastern sections of both zones. **Thatcher** has given an excellent performance during the past eight years and will undoubtedly remain a good choice in this area. **Regent** has been tested six times during the past eight years and has given only an average performance. **Saunders** was tested for the first time in 1947.

CEREAL VARIETY ZONE GROUP 3B and 3C (West)

TABLE NO. 20.—SUMMARIZED RESULTS FOR ZONE GROUP 3B AND 3C (WEST)
(13 satisfactory tests)

	Thatcher	Saunders	Redman	Regent
Yield in bushels per acre.....	25.4	22.4	22.8	21.5
Days from seeding to ripening.....	95.6	94.9	95.4	95.3
Height of plants in inches.....	28.4	28.1	28.5	28.9
Straw strength.....	9.0	8.9	9.0	9.0
Bushel weight in pounds.....	60.7	59.8	59.8	60.5
Commercial grades in percentage: 1 Nor.....	23.0	7.7	7.7	23.1
2 Nor.....	30.8	38.5	15.4	23.1
3 Nor.....	30.8	38.5	53.8	38.4
4 Nor.....	7.7	7.7	15.4	7.7
5 Spec.....	7.7	7.6	7.7	7.7

Necessary difference—1.2 bushels.

Table No. 20. By taking Zones 3B and 3C as one unit (see map, page 37), and then dividing that unit by running a line north and south approximately through the centre, the entire area is divided into two sections. The above table refers to the western section. **Thatcher** outyielded all other varieties significantly and excelled in bushel weight and commercial grades. It proved highly satisfactory in other characteristics. **Redman** was second in yield, exceeding **Regent** by more than the necessary difference. **Redman** was slightly inferior in grading ability but gave a satisfactory general performance. **Saunders** matured early but ranked third in yield. **Regent** excelled in height, produced good bushel weight and commercial grades, but was outyielded by all other varieties.

General Yield Performance During Past Eight Years

Thatcher has been tested in this region during seven of the past eight years. It was high yielder for five years and ranked second in 1942 and 1944. This excellent record indicates the suitability of **Thatcher** for use in the area under review. **Redman** has been tested twice, yielding third in 1946 and second in 1947. **Saunders** was tested for the first time in 1947. **Regent**, over a period of six years has produced average yields in this area.

CEREAL VARIETY ZONE 3E

TABLE NO. 21.—SUMMARIZED RESULTS FOR ZONE 3E
(17 satisfactory tests)

	Thatcher	Saunders	Redman	Regent
Yield in bushels per acre.....	11.0	10.2	10.2	9.7
Days from seeding to ripening.....	87.5	88.1	88.8	89.2
Height of plants in inches.....	19.0	20.0	19.9	19.8
Straw strength.....	8.2	8.7	8.9	8.5
Bushel weight in pounds.....	59.0	58.6	57.9	58.5
Commercial grades in percentage: 1 Nor.....	23.5	23.5	11.7	23.5
2 Nor.....	17.6	23.5	23.5	23.5
3 Nor.....	29.5	11.8	29.5	17.6
4 Nor.....	11.8	23.5	11.8	11.9
4 Spec.....	17.6	11.8	5.9	17.6
No. 5.....	—	—	5.9	—
5 Spec.....	—	5.9	11.7	5.9

Necessary difference—.6 bushel.

Table No. 21. **Thatcher** was high in yield, exceeding all other varieties significantly. It produced comparatively good bushel weight and commercial grades. **Thatcher** ripened slightly earlier than the other varieties but had shorter and weaker straw. Its general performance indicates that **Thatcher** is an excellent choice for Zone 3E. **Redman** and **Saunders** were equal in yielding ability but the latter variety proved slightly superior in bushel weight, commercial grades, height and earliness. **Regent** showed no outstanding characteristics. It was low in yield and slightly late in ripening.

General Yield Performance During Past Eight Years

The superiority of **Thatcher** is demonstrated by the fact that in seven years it has outyielded the other varieties five times. **Redman** has been tested twice with only fair results. **Saunders** was used for the first time in 1947. **Regent**, over a period of six years, yielded second in 1941 and 1943, third in 1942 and 1944 and last in 1940 and 1947. It is not considered suitable for use in Zone 3E.

CEREAL VARIETY ZONE 3F

TABLE NO. 22.—SUMMARIZED RESULTS FOR ZONE 3F
(4 satisfactory tests)

	Thatcher	Saunders	Redman	Regent
Yield in bushels per acre.....	22.7	20.4	21.7	20.0
Days from seeding to ripening.....	89.2	88.5	89.7	89.7
Height of plants in inches.....	22.7	21.3	22.3	22.0
Straw strength.....	9.3	8.5	8.6	8.8
Bushel weight in pounds.....	61.7	61.7	60.7	61.7
Commercial grades in percentage: 2 Nor.....	25.0	—	—	—
3 Nor.....	25.0	50.0	25.0	50.0
4 Nor.....	25.0	25.0	25.0	25.0
No. 5.....	25.0	25.0	50.0	25.0

Necessary difference—1.9 bushels.

Table No. 22. **Thatcher** was high in yield, outyielding **Saunders** and **Regent** significantly. In straw strength, commercial grades, bushel weight and height **Thatcher** proved highly satisfactory. **Redman** was second in yield but produced comparatively low bushel weight and grades. **Saunders** ranked third in yielding ability. It ripened early and produced good bushel weight but was shorter and weaker in straw than the other varieties. The early maturing characteristics of the **Saunders** variety may prove of importance in this northerly zone. **Regent** was comparatively satisfactory in bushel weight and commercial grades but was low in yield and late in maturing.

General Yield Performance During Past Eight Years

Thatcher has been tested in this zone during six of the past eight years. It has given an excellent performance during the period, outyielding all other varieties four times and ranking second in the remaining two years. **Redman** was tested for the first time in 1946 when it was outyielded by all other varieties. In 1947 it placed second. **Saunders** was used in Wheat Pool tests for the first time in 1947. Since 1940 **Regent** has been tested five times in this area and has given only an average performance over the period.

CEREAL VARIETY ZONE GROUP 4A and 4B

TABLE NO. 23.—SUMMARIZED RESULTS FOR ZONE GROUP 4A AND 4B
(9 satisfactory tests)

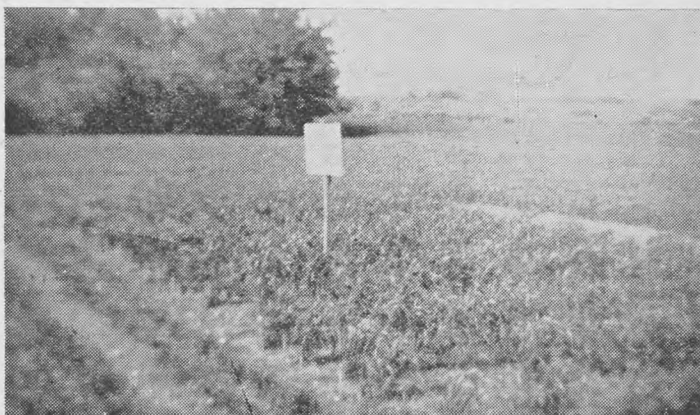
	Thatcher	Saunders	Redman	Regent
Yield in bushels per acre.....	17.3	17.3	17.2	16.1
Days from seeding to ripening.....	96.8	94.3	96.5	95.5
Height of plants in inches.....	21.5	22.0	22.8	22.0
Straw strength.....	9.2	9.2	9.3	9.3
Bushel weight in pounds.....	62.5	62.7	61.8	62.6
Commercial grades in percentage: 1 Nor.....	50.0	40.0	20.0	50.0
2 Nor.....	30.0	40.0	30.0	20.0
3 Nor.....	20.0	20.0	50.0	30.0

Necessary difference—.7 bushel.

Table No. 23. Except for Regent, which was significantly exceeded by all other varieties, there were no marked differences in yield. **Thatcher** and **Saunders** yielded equally well but **Saunders** ripened considerably earlier and produced slightly better bushel weight than **Thatcher**. These two varieties were equal in straw strength but **Saunders** exceeded **Thatcher** in height. The importance of early maturity cannot be over-emphasized in this northerly area and on that basis **Saunders** may prove somewhat superior to **Thatcher**. It should be mentioned, however, that the results of one year's tests are inconclusive and further tests will be necessary before any definite recommendations can be made. **Redman** practically equalled **Thatcher** and **Saunders** in yielding ability but showed definite inferiority in bushel weight and commercial grades. **Regent** was low in yield but in other characteristics it was reasonably satisfactory.

General Yield Performance During Past Eight Years

Thatcher has been tested in this area in six of the past eight years and during the period it has given an outstanding performance. Almost without exception, this variety has ranked first in yield for the zone. **Saunders** was used for the first time in 1947. Its early maturity may prove of definite value in this area where the frost-free season is short. **Redman** has given a satisfactory performance in each of the past two years. **Regent** has been used in tests during five of the past eight years. It placed third in 1940, 1941, 1943 and 1944 and was low in yield during 1947.



THE WHEAT TEST OF WILHELM PAIDEL, KILLALY

INDIVIDUAL RESULTS

The results of individual wheat tests are shown in Table No. 24. The tests are listed in order of Wheat Pool districts and sub-districts. The zone in which each test was analyzed is shown under the column headed "Cereal Variety Zone." As mentioned previously, some zones were split into two parts for analysis. In such cases, the part of the zone in which the test was placed is shown by the addition of a letter in brackets placed after the zone name. For instance, 2B (S) indicates that the test was placed in the "southern" section of zone 2B; 2B (N), on the other hand, indicates that the test was placed in the "northern" section for analysis. Before consulting the following table, the reader is advised to refer to the discussion on page 7 headed, "Facts to be Remembered in Reading and Studying Results."

TABLE NO. 24

Individual Summarized Results of All Tests—Wheat

WHEAT POOL DISTRICT 1

Cereal Variety Zone	Dist.	Sub-Dist.	Test designation	Varieties	Yield bus. per acre	Days seed-ing to ripening	Plant height in inches	Straw strength	Lbs. per measured bushel	Commercial grades	Grading remarks	Protein content in per centage
M. JAMES ELLIOTT, CARIEVALE												
3A.....	1	1	A	Thatcher.....	14.6	92	31	8.0	55	4 Sp.	—	14.2
				Saunders.....	11.3	92	28	10.0	54	No. 5	I.	14.3
				Redman.....	15.0	92	31	10.0	54	No. 5	I.	14.0
				Regent.....	13.5	92	30	10.0	54	No. 5	I.	14.2
Necessary difference—.8 bushel.												
C. JEROLD TALMAN, FERTILE												
3A.....	1	2	A	Thatcher.....	5.3	93	31	8.8	59	3 Nor.	I.	14.0
				Saunders.....	3.9	93	30	8.2	56	4 Nor.	—	14.6
				Redman.....	6.1	93	30	7.6	58	4 Nor.	G., I.	14.8
				Regent.....	3.3	93	29	8.0	58	3 Nor.	I.	15.2
Damaged by hail.												
OTTO NEUMAN, OXBOW												
2A.....	1	3	A	Thatcher.....	15.2	96	34	5.0	60	2 Nor.	I.	14.0
				Rescue.....	14.5	96	34	5.0	59	2 Nor.	I.	14.3
				Pelissier.....	19.2	104	40	10.0	63	3 C.W.	—	12.7
				Stewart.....	25.2	101	39	9.0	65	1 C.W.	—	12.3
Necessary difference—1.7 bushels.												
A. MORGAN KAY, NORTH PORTAL												
2A.....	1	4	A	Thatcher.....	8.5	—	—	—	56	4 Nor.	—	13.0
				Rescue.....	9.4	—	—	—	57	3 Nor.	—	11.5
				Pelissier.....	16.6	—	—	—	66	3 C.W.	—	12.5
				Stewart.....	18.1	—	—	—	66	3 C.W.	S.F., Stch.	10.3
Necessary difference—1.9 bushels.												
JAMES BOWERS, BRYANT												
2A.....	1	5	A	Thatcher.....	16.8	106	24	10.0	59	3 Nor.	G., I.	13.6
				Rescue.....	16.4	106	24	10.0	60	2 Nor.	I.	12.8
				Pelissier.....	19.7	106	24	10.0	65	3 C.W.	—	12.2
				Stewart.....	18.8	106	24	10.0	66	2 C.W.	I.	12.1
Necessary difference—2.1 bushels.												
ELDEN D. LOHSE, RATCLIFFE												
2A.....	1	7	A	Thatcher.....	15.0	101	15	7.6	61	3 Nor.	G., I.	14.2
				Rescue.....	15.8	101	15	9.6	62	2 Nor.	I.	13.4
				Pelissier.....	25.4	108	20	9.4	64	3 C.W.	—	13.2
				Stewart.....	22.5	108	19	8.8	64	2 C.W.	G.	13.3
Necessary difference—2.0 bushels.												
MERLE G. CHAPMAN, ARCOLA												
2A.....	1	9	A	Thatcher.....	23.2	95	34	6.0	59	2 Nor.	—	13.0
				Rescue.....	23.2	95	36	10.0	61	1 Nor.	—	11.9
				Pelissier.....	33.3	100	42	9.0	65	3 C.W.	—	11.6
				Stewart.....	37.4	100	44	9.0	67	1 C.W.	—	11.0
Necessary difference—1.5 bushels.												
Tests discarded on account of damage by drought, pests, hail, or other causes.												
	1	10	A	Henrie Gervais, Wauchope.								

WHEAT POOL DISTRICT 2

ELDEN H. AND DELBERT JOSEPHSON, RADVILLE												
2A.....	2	1	A	Thatcher.....	12.9	—	—	—	54	4 Sp.	—	17.7
				Rescue.....	9.2	—	—	—	57	3 Nor.	—	17.4
				Pelissier.....	11.3	—	—	—	63	3 C.W.	—	16.1
				Stewart.....	9.6	—	—	—	60	2 C.W.	—	17.9
Necessary difference—1.5 bushels.												
BUDD J. ALDRED, CEYLON												
2A.....	2	2	A	Thatcher.....	14.0	104	28	9.0	59	2 Nor.	—	13.8
				Rescue.....	15.0	103	28	9.0	61	1 Nor.	—	13.1
				Pelissier.....	21.3	110	31	9.0	66	3 C.W.	—	11.3
				Stewart.....	19.8	110	32	9.0	66	1 C.W.	—	11.9
Necessary difference—1.6 bushels.												

Wheat Pool District 2—Continued

Cereal Variety Zone	Dist.	Sub-Dist.	Test designation	Varieties	Yield bus. per acre	Days seed- ing to ripening	Plant height in inches	Straw strength	Lbs. per meas- ured bushel	Com- mercial grades	Grading remarks	Protein content in per- centage
BERNARD M. WOLFE, KILLDEER												
1A.....	2	5	A	Thatcher.....	26.3	109	31	9.6	60	1 Nor.	—	15.5
				Rescue.....	25.4	109	31	8.8	61	1 Nor.	—	14.9
				Pelissier.....	29.6	113	32	8.8	64	3 C.W.	—	14.3
				Stewart.....	26.5	113	33	9.0	65	1 C.W.	—	14.7
No significant grain yield difference between varieties.												

MAURICE R. VERHELST, LA FLECHE												
1A.....	2	6	A	Thatcher.....	18.1	103	33	10.0	57	3 Nor.	—	17.4
				Rescue.....	16.8	102	32	10.0	58	2 Nor.	—	16.8
				Pelissier.....	22.2	111	37	9.0	64	3 C.W.	—	16.4
				Stewart.....	18.7	111	38	9.0	65	1 C.W.	—	17.0
Necessary difference—1.4 bushels.												

ARTHUR SKARBON, LIMERICK												
1A.....	2	7	A	Thatcher.....	30.6	—	—	—	60	2 Nor.	Bl.	15.8
				Rescue.....	31.2	—	—	—	61	2 Nor.	Bl.	14.5
				Pelissier.....	42.2	—	—	—	62	3 C.W.	—	14.0
				Stewart.....	41.2	—	—	—	63	2 C.W.	G.	13.6
Necessary difference—2.8 bushels.												

ANGELINE D. MARTIN, ORMISTON												
1A*.....	2	8	A	Thatcher.....	8.4	—	20	9.0	56	4 Nor.	—	16.2
				Rescue.....	9.4	—	20	7.0	57	3 Nor.	—	15.7
				Pelissier.....	11.9	—	25	8.0	61	3 C.W.	—	14.5
				Stewart.....	9.4	—	24	8.0	63	2 C.W.	Bl.	14.5
Necessary difference—1.3 bushels.												

Tests discarded on account of damage by drought, pests, hail, or other causes.

2 10 A Keith E. Webb, Amulet.

WHEAT POOL DISTRICT 3

GORDON COWIE, MANKOTA												
1A*.....	3	1	A	Thatcher....	4.7	90	19	—	54	4 Sp.	—	18.6
				Rescue.....	5.3	90	21	—	55	4 Sp.	—	18.4
				Pelissier.....	4.0	97	23	—	59	3 C.W.	—	19.1
				Stewart.....	3.2	90	22	—	59	3 C.W.	—	18.9
Necessary difference—1.1 bushels.												

RUDOLPH BARSNESS, FRONTIER												
1A.....	3	4	A	Thatcher.....	19.1	123	32	8.0	57	3 Nor.	—	15.8
				Rescue.....	20.1	123	33	7.4	58	2 Nor.	—	14.5
				Pelissier.....	32.1	127	38	9.0	63	3 C.W.	—	12.3
				Stewart.....	23.4	127	34	8.4	64	2 C.W.	Bl.	13.4
Necessary difference—4.5 bushels.												

GARY E. HAMMER, SHAUNAVON												
1A.....	3	8	A	Thatcher.....	4.4	87	14	10.0	54	4 Sp.	—	18.9
				Rescue.....	4.4	89	18	10.0	58	2 Nor.	—	18.4
				Pelissier.....	—	97	14	10.0	(A)	(E)3C.W.	—	17.3
				Stewart.....	—	98	13	10.0	(A)	(E)2C.W.	—	18.6
Samples incomplete.												

R. ROY SMITH, HAZENMORE												
1A*.....	3	10	A	Thatcher.....	10.2	—	—	—	54	4 Sp.	—	17.6
				Rescue.....	10.4	—	—	—	55	4 Sp.	—	16.9
				Pelissier.....	10.9	—	—	—	64	3 C.W.	—	15.6
				Stewart.....	7.6	—	—	—	63	2 C.W.	I.	16.1
Necessary difference—1.5 bushels.												

Tests discarded on account of damage by drought, pests, hail, or other causes.

3 5 A Kenneth Howell, Robsart.
3 6 A Charles Fletcher, Ravenscrag.
3 7 A Melbourne McPhee, South Fork.
3 9 A Ralph Lett, Cadillac.

1A*—Note: This test was placed in zone group 1B and 1A* for analysis.

(A)—Insufficient to calculate bushel weight.

(E)—Estimated Grade.

WHEAT POOL DISTRICT 4

Cereal Variety Zone	Dist.	Sub- Dist.	Test design- Varieties	Yield bus. per acre	Days seed- ing to ripening	Plant height in inches	Straw strength	Lbs. per measured bushel	Com- mercial grades	Grading remarks	Protein content in per- centage
ERNEST W. EARL, SIDEWOOD											
1B.....	4	1	A	Thatcher.....	4.7	—	19	8.2	60	2 Nor.	1. 15.7
				Rescue.....	5.0	—	20	8.2	60	2 Nor.	1. 14.5
				Pelissier.....	7.0	—	23	8.4	63	3 C.W.	— 13.5
				Stewart.....	4.7	—	22	8.4	61	2 C.W.	— 14.8
Necessary difference—1.1 bushels.											
WILFRED SANDAU, MAPLE CREEK											
1B.....	4	2	A	Thatcher.....	5.8	77	14	9.4	51	5 Sp.	— —
				Rescue.....	4.0	78	15	9.4	52	5 Sp.	— —
				Pelissier.....	2.1	84	16	9.2	57	4 C.W.	— —
				Stewart.....	1.1	83	14	9.2	(A)	(E)4C.W.	— —
Not included with zone analysis.											
VICTOR G. SKYE, CARDELL											
1B.....	4	2	B	Thatcher.....	9.7	—	—	—	57	3 Nor.	— —
				Rescue.....	10.0	—	—	—	59	2 Nor.	— —
				Pelissier.....	7.8	—	—	—	64	3 C.W.	— —
				Stewart.....	9.3	—	—	—	64	1 C.W.	— —
Not included in zone analysis.											
BERNHARD V. POWELL, GOLDEN PRAIRIE											
1B.....	4	6	A	Thatcher.....	13.9	83	17	10.0	59	2 Nor.	— 16.0
				Rescue.....	12.5	85	21	10.0	60	1 Nor.	— 14.8
				Pelissier.....	12.3	94	24	10.0	64	3 C.W.	— 15.3
				Stewart.....	11.1	89	24	9.0	64	1 C.W.	— 15.8
Necessary difference—1.4 bushels.											
HAROLD P. JANECKE, RICHMOUND											
1B.....	4	7	A	Thatcher.....	7.0	—	29	6.0	51	5 Sp.	— 19.5
				Rescue.....	6.0	—	28	6.0	55	4 Sp.	— 19.0
				Pelissier.....	2.5	—	35	8.0	60	3 C.W.	— 19.4
				Stewart.....	2.0	—	24	5.0	60	2 C.W.	— 19.5
Necessary difference—1.6 bushels.											
NICHOLAS CHARNETSKI, PRELATE											
1A.....	4	8	A	Thatcher.....	18.3	—	—	—	63	1 Nor.	— 13.8
				Rescue.....	23.6	—	—	—	64	1 Nor.	— 13.2
				Pelissier.....	23.2	—	—	—	66	3 C.W.	— 13.1
				Stewart.....	27.5	—	—	—	67	1 C.W.	— 12.7
Necessary difference—3.1 bushels.											

WHEAT POOL DISTRICT 5

PAUL M. MANG, ARBUTHNOT											
1A *.....	5	2	A	Thatcher.....	8.0	90	24	5.0	52	5 Sp.	— 17.4
				Rescue.....	8.4	90	23	7.0	53	4 Sp.	— 17.2
				Pelissier.....	4.1	89	32	9.0	55	5 C.W.	— 18.4
				Stewart.....	4.3	89	30	8.0	58	3 C.W.	— 18.8
Necessary difference—.5 bushel.											
THOMAS J. RUNCIE, PAMBRUN											
1A *.....	5	3	A	Thatcher.....	8.6	90	25	6.0	51	5 Sp.	— 18.7
				Rescue.....	6.2	91	24	9.0	53	4 Sp.	— 18.6
				Pelissier.....	7.4	99	26	6.8	59	3 C.W.	— 19.3
				Stewart.....	5.2	99	27	7.0	59	3 C.W.	— 19.5
Necessary difference—1.6 bushels.											
CORNIE D. BROWN, McMAHON											
2C.....	5	4	A	Thatcher.....	14.7	106	26	9.0	58	2 Nor.	— 15.8
				Rescue.....	14.5	109	26	9.0	59	2 Nor.	— 15.0
				Pelissier.....	18.2	114	30	9.4	62	3 C.W.	— 14.6
				Stewart.....	17.6	114	28	9.0	64	1 C.W.	— 13.9
Necessary difference—.9 bushel.											
ARTHUR ARNOLD, SHAMROCK											
1A.....	5	5	A	Thatcher.....	20.1	100	35	8.8	59	3 Nor.	1. 14.8
				Rescue.....	20.3	100	39	7.8	61	2 Nor.	1. 13.9
				Pelissier.....	28.9	103	45	9.2	65	3 C.W.	— 12.7
				Stewart.....	24.8	101	46	8.6	65	1 C.W.	— 13.1
Necessary difference—1.8 bushels.											

(A)=Insufficient to calculate bushel weight.

(E)=Estimated grade.

1A *—Note: This test was placed in zone group 1B and 1A *† or analysis.

Wheat Pool District 5—Continued

Cereal Variety Zone	Dist.	Sub-Dist.	Test designation	Varieties	Yield bus. per acre	Days seed-ing to ripening	Plant height in inches	Straw strength	Lbs. per measured bushel	Com-mercial grades	Grading remarks	Protein content in per-centage
RICHARD H. BOX, COURVAL												
1A.....	5	6	A	Thatcher....	10.6	85	25	10.0	55	4 Sp.	—	17.8
				Rescue.....	10.3	85	25	9.4	58	2 Nor.	—	17.1
				Pelissier....	11.7	97	28	9.2	62	3 C.W.	—	17.4
				Stewart.....	9.1	92	27	9.4	62	1 C.W.	—	18.1
No significant grain yield difference between varieties.												
HENRY UNGER, ERFOLD												
1A.....	5	10	A	Thatcher....	19.5	98	27	5.8	57	3 Nor.	—	15.7
				Rescue.....	18.1	100	27	7.6	58	2 Nor.	—	14.5
				Pelissier....	25.8	102	35	10.0	64	3 C.W.	—	13.4
				Stewart.....	24.0	104	34	10.0	64	1 C.W.	—	14.3
Necessary difference—2.0 bushels.												
Tests discarded on account of damage by drought, pests, hail, or other causes.												
	5	8	A	Norman Beck, Mawer.								
	5	9	A	Patrick Williams, Halvorgate.								

WHEAT POOL DISTRICT 6

THELMA L. TERRY, WILCOX												
2E.....	6	3	A	Thatcher....	29.4	92	39	8.2	57	3 Nor.	—	16.3
				Rescue.....	23.8	93	42	5.0	57	3 Nor.	—	16.5
				Pelissier....	36.7	100	39	8.6	63	3 C.W.	—	15.9
				Stewart.....	37.9	100	38	10.0	62	2 C.W.	Bl.	15.6
Necessary difference—2.9 bushels.												
PAUL A. BEITEL, BAYARD												
1A*.....	6	4	A	Thatcher....	13.1	84	30	8.4	53	4 Sp.	—	18.2
				Rescue.....	8.8	84	30	8.8	50	Fd.	—	18.8
				Pelissier....	9.7	93	33	7.0	56	4 C.W.	—	21.2
				Stewart.....	9.3	93	33	7.4	58	3 C.W.	—	21.0
Necessary difference—1.3 bushels.												
STANLEY R. GREEN, BOHARM												
2E.....	6	5	A	Thatcher....	22.7	87	27	9.0	61	1 Nor.	—	16.8
				Rescue.....	22.9	87	27	10.0	61	1 Nor.	—	16.3
				Pelissier....	18.8	92	29	9.0	63	3 C.W.	—	15.8
				Stewart.....	18.3	92	29	9.0	65	1 C.W.	—	16.2
Necessary difference—1.8 bushels.												
BARRY L. STRAYER, DRINKWATER												
2E.....	6	6	A	Thatcher....	13.7	95	20	7.4	58	2 Nor.	—	16.2
				Rescue.....	11.4	96	18	6.4	58	2 Nor.	—	16.4
				Pelissier....	18.7	105	36	8.4	64	3 C.W.	—	15.5
				Stewart.....	16.8	105	36	9.0	64	1 C.W.	—	15.4
Necessary difference—2.3 bushels.												
JAMES BEATTY, JR., ADAMS												
2E.....	6	7	A	Thatcher....	31.4	103	33	—	62	3 Nor.	G., I.	14.8
				Rescue.....	33.2	103	37	—	63	3 Nor.	G., I.	14.2
				Pelissier....	39.4	106	41	—	65	3 C.W.	—	13.5
				Stewart.....	44.1	106	44	—	66	1 C.W.	—	13.0
Necessary difference—3.0 bushels.												
ALBERT GOGEL, ZEHNER												
3C (W).....	6	7	B	Thatcher....	23.6	109	28	8.8	61	1 Nor.	—	15.4
				Saunders....	21.0	108	28	8.6	60	2 Nor.	I.	14.7
				Redman.....	21.5	108	27	8.4	59	2 Nor.	—	14.9
				Regent.....	19.0	109	29	8.8	61	1 Nor.	—	15.7
No significant grain yield difference between varieties.												
LILY M. KRAUSE, QU'APPELLE												
3C (W).....	6	8	A	Thatcher....	30.6	100	37	7.2	59	3 Nor.	I.	16.3
				Saunders....	28.4	99	35	7.2	57	3 Nor.	—	16.6
				Redman.....	24.9	99	35	8.0	57	3 Nor.	—	16.4
				Regent.....	27.8	99	37	9.0	58	3 Nor.	I.	16.5
No significant grain yield difference between varieties.												
GEORGE L. DIXON, BALCARRES												
3C (W).....	6	9	A	Thatcher....	39.5	106	34	9.0	61	2 Nor.	Bl.	16.0
				Saunders....	30.4	106	34	9.0	59	2 Nor.	—	14.6
				Redman.....	29.6	106	34	9.0	60	3 Nor.	Bl., I.	15.2
				Regent.....	25.4	106	34	9.0	61	2 Nor.	Bl., I.	15.9
Necessary difference—2.8 bushels.												
1A*—Note: This test was placed in zone group 1B and 1A* for analysis.												

Wheat Pool District 6—Continued

Cereal Variety Zone	Dist.	Sub-Dist.	Test designation	Varieties	Yield bus. per acre	Days seed-ing to ripening	Plant height in inches	Straw strength	Lbs. per meas-ured bushel	Com-mercial grades	Grading remarks	Protein content in per centage—
OLIVE E. THOMPSON, DISLEY												
2B (S).....	6	10	A	Thatcher.....	25.0	88	32	10.0	57	3 Nor.	—	16.2
				Rescue.....	24.9	88	32	10.0	59	2 Nor.	—	15.6
				Pelissier.....	33.5	95	36	10.0	63	3 C.W.	—	14.8
				Stewart.....	29.1	93	37	10.0	64	1 C.W.	—	15.5

Necessary difference—1.6 bushels.

GORDON W. WAGNER, CRAVEN												
3C (W).....	6	10	B	Thatcher.....	17.3	—	—	—	63	1 Nor.	—	12.6
				Saunders.....	14.9	—	—	—	62	1 Nor.	—	12.8
				Redman.....	17.6	—	—	—	63	1 Nor.	—	12.5
				Regent.....	16.2	—	—	—	62	1 Nor.	—	13.1

No significant grain yield difference between varieties.

WHEAT POOL DISTRICT 7

NICK BARRY, FAIRLIGHT												
3A.....	7	1	A	Thatcher.....	7.5	—	—	—	56	4 Nor.	—	12.5
				Saunders.....	5.9	—	—	—	55	4 Sp.	—	13.0
				Redman.....	9.7	—	—	—	57	3 Nor.	—	12.6
				Regent.....	6.4	—	—	—	56	4 Nor.	—	12.9

Necessary difference—.8 bushel.

C. ROY CUTHILL, FLEMING												
3A.....	7	2	A	Thatcher.....	16.6	—	—	—	58	3 Nor.	I.	13.8
				Saunders.....	14.4	—	—	—	54	No. 5	G., I.	14.5
				Redman.....	23.5	—	—	—	59	3 Nor.	I.	13.6
				Regent.....	16.7	—	—	—	58	3 Nor.	I.	13.8

Necessary difference—1.5 bushels.

ROBERT A. SMYTH, KENNEDY												
3A.....	7	3	A	Thatcher.....	27.2	90	40	8.6	61	3 Nor.	I.	12.7
				Saunders.....	22.8	90	40	6.6	59	4 Nor.	G., I.	14.2
				Redman.....	27.4	90	40	8.6	60	4 Nor.	G., I.	14.0
				Regent.....	21.8	90	40	7.6	60	3 Nor.	G., I.	13.2

Samples incomplete.

LARRY M. TOPPINGS, KIPLING												
3A.....	7	4	A	Thatcher.....	22.2	—	—	—	60	4 Nor.	D., I.	13.1
				Saunders.....	17.5	—	—	—	58	4 Nor.	D., I.	13.5
				Redman.....	25.8	—	—	—	59	4 Nor.	D., I.	13.1
				Regent.....	21.9	—	—	—	60	4 Nor.	D., I.	13.3

Necessary difference—2.9 bushels.

BRUCE J. McCARTHY, CORNING												
3A.....	7	5	A	Thatcher.....	21.6	100	34	9.0	62	2 Nor.	I.	13.1
				Saunders.....	17.6	100	34	8.2	60	2 Nor.	I.	13.6
				Redman.....	19.3	100	34	7.0	62	2 Nor.	I.	13.4
				Regent.....	17.6	100	34	8.0	62	2 Nor.	I.	13.8

Necessary difference—2.2 bushels.

GEORGE A. HOWARTH, BROADVIEW												
3A.....	7	7	A	Thatcher.....	13.9	97	28	8.6	62	2 Nor.	I.	14.5
				Saunders.....	14.2	99	26	7.6	61	2 Nor.	I.	14.0
				Redman.....	13.5	98	27	8.4	61	2 Nor.	I.	14.3
				Regent.....	10.0	98	26	8.2	62	2 Nor.	I.	14.6

Necessary difference—2.1 bushels.

EVERETT R. KING, ROCANVILLE												
3C (E).....	7	8	A	Thatcher.....	25.5	97	38	9.0	59	3 Nor.	I.	14.5
				Saunders.....	20.2	95	36	9.2	58	4 Nor.	D., I.	15.3
				Redman.....	30.1	101	40	8.2	61	4 Nor.	D., I.	14.1
				Regent.....	25.7	99	37	7.0	61	3 Nor.	D., I.	14.7

Necessary difference—2.2 bushels.

GRANT W. PLEWES, SPY HILL												
3B (E).....	7	9	A	Thatcher.....	39.4	101	41	8.0	60	3 Nor.	G., I.	13.5
				Saunders.....	32.8	102	40	8.2	57	4 Nor.	G., I.	14.4
				Redman.....	41.9	104	41	7.6	60	3 Nor.	G., I.	14.4
				Regent.....	40.5	101	43	8.6	60	3 Nor.	G., I.	14.0

Necessary difference—2.3 bushels.

B. DONALD LANDINE, STOCKHOLM												
3C (E).....	7	10	A	Thatcher.....	36.4	—	—	—	63	2 Nor.	I.	14.8
				Saunders.....	32.5	—	—	—	61	2 Nor.	I.	14.5
				Redman.....	38.9	—	—	—	63	3 Nor.	D., I.	14.6
				Regent.....	35.4	—	—	—	63	2 Nor.	I.	14.9

No significant grain yield difference between varieties.

Wheat Pool District 7—Continued

Cereal Variety Zone	Dist.	Sub-Dist.	Test designation	Varieties	Yield bus. per acre	Days seed- ing to ripening	Plant height in inches	Straw strength	Lbs. per meas- ured bushel	Com- mercial grades	Grading remarks	Protein content in per. centage
WILHELM PAIDEL, KILLALY												
3C (E).....	7	11	A	Thatcher....	24.5	104	35	8.6	60	3 Nor.	Pk., I.	13.6
				Saunders....	22.3	102	32	8.2	59	3 Nor.	I.	14.1
				Redman....	27.7	103	35	9.6	60	3 Nor.	I.	13.9
				Regent....	21.8	104	36	9.6	61	2 Nor.	S. I.	14.1
Necessary difference—3.5 bushels.												

W. STANLEY ACTON, LEMBERG												
3C (E).....	7	11	B	Thatcher....	19.2	97	34	8.6	64	1 Nor.	—	12.8
				Saunders....	18.3	98	33	9.4	62	2 Nor.	Stch.	12.4
				Redman....	22.1	98	35	10.0	63	2 Nor.	S. I.	12.9
				Regent....	17.5	97	36	9.8	64	1 Nor.	—	13.2
Samples bulked.												

Tests discarded on account of damage by drought, pests, hail, or other causes.

7 6 A Arnold Bieber, Montmartre.

WHEAT POOL DISTRICT 8

A. STEVE ZRUDLO, WROXTON												
3B (E).....	8	1	A	Thatcher....	14.7	—	—	—	58	3 Nor.	I.	14.1
				Saunders....	14.4	—	—	—	57	4 Nor.	I.	14.4
				Redman....	18.6	—	—	—	58	3 Nor.	I.	13.9
				Regent....	15.5	—	—	—	59	2 Nor.	—	14.0
Necessary difference—2.2 bushels.												

MOLLY V. KELLY, SALTCOATS												
3B (E).....	8	2	A	Thatcher....	23.6	76	—	—	59	3 Nor.	I.	16.1
				Saunders....	22.5	76	—	—	60	3 Nor.	I.	15.5
				Redman....	26.8	76	—	—	59	4 Nor.	D., I.	15.4
				Regent....	23.9	76	—	—	61	3 Nor.	I.	15.5
Samples bulked.												

WILFRED FINK, YORKTON												
3C (E).....	8	4	A	Thatcher....	24.1	94	39	10.0	64	1 Nor.	—	12.1
				Saunders....	24.7	93	37	9.0	63	1 Nor.	—	11.6
				Redman....	25.3	92	40	10.0	63	1 Nor.	—	11.3
				Regent....	22.3	93	38	10.0	63	1 Nor.	—	12.4
No significant grain yield difference between varieties.												

RONALD V. DIXON, KAMSACK												
3B (E).....	8	5	A	Thatcher....	19.7	95	30	8.6	63	2 Nor.	I.	12.0
				Saunders....	19.0	94	29	7.4	60	2 Nor.	I.	12.6
				Redman....	21.9	96	29	7.4	62	2 Nor.	I.	12.1
				Regent....	19.9	94	28	7.4	63	1 Nor.	—	12.3
Necessary difference—1.4 bushels.												

TEDDY F. WASYLYSHEN, GORLITZ												
3C (E).....	8	6	A	Thatcher....	45.3	96	37	8.6	61	4 Nor.	G., I.	14.6
				Saunders....	39.2	94	36	8.4	60	3 Nor.	D., I.	14.1
				Redman....	47.7	95	37	8.4	61	No. 5	G., I.	14.7
				Regent....	41.4	94	38	8.2	62	3 Nor.	D., I.	15.0
Necessary difference—3.1 bushels.												

BILL SAMCHUK, RAMA												
3C (E).....	8	7	A	Thatcher....	13.3	99	32	9.6	63	3 Nor.	D., I.	14.0
				Saunders....	14.9	95	33	8.8	62	2 Nor.	I.	13.1
				Redman....	16.6	96	33	9.4	63	3 Nor.	D., I.	13.4
				Regent....	14.0	96	33	9.0	63	3 Nor.	D., I.	14.2
Samples bulked.												

STEFFIE KOTYK, RAMA												
3C (E).....	8	7	B	Thatcher....	33.6	—	—	—	61	2 Nor.	I.	13.7
				Saunders....	27.1	—	—	—	59	3 Nor.	I.	14.1
				Redman....	31.6	—	—	—	61	3 Nor.	D., I.	14.3
				Regent....	27.8	—	—	—	62	3 Nor.	D., I.	14.5
Necessary difference—3.4 bushels.												

HARRY J. YAREMCHUCK, HINCHLIFFE												
3B (E).....	8	8	A	Thatcher....	29.2	—	—	—	63	1 Nor.	—	12.5
				Saunders....	30.5	—	—	—	62	1 Nor.	—	13.2
				Redman....	30.9	—	—	—	62	2 Nor.	I., Stch.	12.6
				Regent....	28.3	—	—	—	63	2 Nor.	I., Stch.	13.3
No significant grain yield difference between varieties.												

Wheat Pool District 8—Continued

Cereal Variety Zone	Dist.	Sub-Dist.	Test designation	Varieties	Yield bus. per acre	Days seed- ing to ripening	Plant height in inches	Straw strength	Lbs. per measured bushel	Com- mercial grades	Grading remarks	Protein content in per- centage
TOM BROWN, PELLY												
3B (E).....	8	10	A	Thatcher.....	37.8	104	30	10.0	62	3 Nor.	G., I.	14.4
				Saunders.....	34.1	99	29	10.0	60	3 Nor.	G., I.	14.3
				Redman.....	38.6	103	31	9.8	60	3 Nor.	G., I.	14.4
				Regent.....	36.9	101	30	9.8	61	3 Nor.	G., I.	14.9
Necessary difference—1.9 bushels.												

WHEAT POOL DISTRICT 9

HAROLD TKATCH, JASMIN												
3C (W).....	9	1	A	Thatcher....	15.2	93	35	8.8	61	3 Nor.	G., I.	15.6
				Saunders....	14.6	92	35	7.8	61	3 Nor.	G., I.	15.5
				Redman.....	14.7	93	36	8.4	61	3 Nor.	G., I.	14.9
				Regent.....	13.5	93	36	8.2	62	3 Nor.	D., I.	15.9
No significant grain yield difference between varieties.												

CLAUDE H. STEARNS, CUPAR												
3C (W).....	9	2	A	Thatcher....	23.9	—	32	9.0	64	1 Nor.	—	13.9
				Saunders....	20.9	—	32	9.0	63	2 Nor.	I.	12.9
				Redman.....	20.2	—	32	9.0	63	2 Nor.	G., I.	13.1
				Regent.....	18.8	—	32	9.0	63	1 Nor.	—	14.1
Necessary difference—2.6 bushels.												

DONALD K. WAGNER, EARL GREY												
3C (W).....	9	4	A	Thatcher....	16.8	—	—	—	52	5 Sp.	—	17.7
				Saunders....	14.4	—	—	—	51	5 Sp.	—	18.1
				Redman.....	14.9	—	—	—	51	5 Sp.	—	16.9
				Regent.....	15.3	—	—	—	51	5 Sp.	—	17.9
Necessary difference—1.0 bushel.												

THOMAS L. CARDIFF, CYMRIC												
2B (S).....	9	5	A	Thatcher....	5.0	104	19	8.6	53	4 Sp.	—	17.2
				Rescue.....	4.8	104	19	8.8	55	4 Sp.	—	16.8
				Pelissier....	4.2	107	20	9.2	59	3 C.W.	—	15.6
				Stewart.....	4.6	107	21	9.4	60	2 C.W.	—	15.9
Badly damaged by hail.												

PHILIP DABROWSKI, GOVAN												
2B (S).....	9	5	B	Thatcher.....	22.4	—	—	—	61	1 Nor.	—	14.7
				Rescue.....	20.9	—	—	—	62	1 Nor.	—	14.1
				Pelissier.....	19.1	—	—	—	63	3 C.W.	—	14.0
				Stewart.....	19.9	—	—	—	65	1 C.W.	—	14.4
Necessary difference—1.4 bushels.												

RAYMOND L. HARDS, TATE												
2B (S).....	9	7	A	Thatcher.....	11.2	100	25	10.0	57	3 Nor.	—	15.8
				Rescue.....	10.2	100	23	10.0	59	3 Nor.	I.	16.4
				Pelissier....	14.1	101	26	10.0	63	3 C.W.	—	15.1
				Stewart.....	13.1	100	27	9.0	63	1 C.W.	—	16.1
Necessary difference—1.3 bushels.												

REINHOLD R. WODTKE, PUNNICHY												
3C (W).....	9	7	B	Thatcher....	25.1	91	26	9.6	59	2 Nor.	—	17.1
				Saunders....	21.8	91	26	9.4	59	2 Nor.	—	16.8
				Redman.....	22.8	91	27	9.8	57	3 Nor.	—	17.1
				Regent.....	21.4	91	26	9.6	59	2 Nor.	—	17.6
Necessary difference—1.6 bushels.												

KENNETH JOHNSON, WYNYARD												
2B (S).....	9	8	A	Thatcher....	30.3	118	23	10.0	59	3 Nor.	Bl., I.	14.5
				Rescue.....	29.1	118	23	10.0	59	4 Nor.	G., I., F.	13.9
				Pelissier....	43.8	121	34	9.2	58	4 C.W.	F., G.	14.4
				Stewart.....	41.3	122	35	9.0	60	4 C.W.	F., G.	14.2
Necessary difference—4.1 bushels.												

CLARENCE V. JOSEPHSON, MOZART												
3C (W).....	9	10	A	Thatcher....	26.8	—	22	10.0	64	2 Nor.	I.	13.6
				Saunders....	20.2	—	22	10.0	63	2 Nor.	I.	13.6
				Redman.....	24.3	—	22	10.0	63	3 Nor.	G., I.	13.8
				Regent.....	21.4	—	22	10.0	64	2 Nor.	I.	14.4
Necessary difference—1.5 bushels.												

Wheat Pool District 9—Continued

Cereal Variety Zone	Sub- Dist.	Test Dist.	Design- ation	Varieties	Yield bus. per acre	Days seed- ing to ripening	Plant height in inches	Straw strength	Lbs. per meas- ured bushel	Com- mercial grades	Grading remarks	Protein content in per centage
DONALD N. McLEOD, ELFROS												
3C (E).....	9	10	B	Thatcher....	30.0	101	34	8.0	61	3 Nor.	G., F.	13.6
				Saunders....	27.2	94	30	7.0	59	4 Nor.	G., F.	13.6
				Redman....	31.9	96	32	9.0	60	4 Nor.	G., F.	13.1
				Regent....	29.1	99	36	8.0	62	3 Nor.	G., F.	13.8

Necessary difference—1.5 bushels.

F. N. MURPHY, KYLEMORE												
3C (E).....	9	10	C	Thatcher....	32.3	92	32	—	60	4 Nor.	G., I.	13.1
				Saunders....	32.1	90	32	—	61	4 Nor.	G., I., Stch.	12.2
				Redman....	38.4	92	32	—	60	4 Nor.	G., I., Stch.	12.2
				Regent....	30.5	92	32	—	62	4 Nor.	G., I., Stch.	13.2

Necessary difference—3.5 bushels.

WHEAT POOL DISTRICT 10

JAMES and GORDON WILSON, PENZANCE												
2B (S).....	10	1	B	Thatcher....	10.3	81	24	10.0	55	4 Sp.	—	17.6
				Rescue....	8.8	83	24	10.0	56	4 Nor.	—	17.0
				Pelissier....	8.8	95	28	10.0	62	3 C.W.	—	17.1
				Stewart....	8.5	85	26	10.0	61	2 C.W.	—	17.9

Necessary difference—.9 bushel.

ALBERT G. HUNTER, RIVERHURST												
1A.....	10	2	A	Thatcher....	7.3	91	24	10.0	53	4 Sp.	—	19.6
				Rescue....	6.8	90	24	10.0	55	4 Sp.	—	19.5
				Pelissier....	4.9	92	24	10.0	58	3 C.W.	—	18.7
				Stewart....	3.5	90	24	10.0	61	2 C.W.	—	19.0

Samples bulked.

GORDON H. BURSTON, WISETON												
2F.....	10	4	A	Thatcher....	10.3	—	—	—	55	4 Sp.	—	17.4
				Rescue....	7.8	—	—	—	56	4 Nor.	—	17.0
				Pelissier....	7.2	—	—	—	59	3 C.W.	Bl.	17.2
				Stewart....	4.6	—	—	—	58	3 C.W.	Bl.	18.4

Necessary difference—1.1 bushels.

KENNETH I. BLIXT, SURBITON												
2B (N).....	10	5	A	Thatcher....	11.1	103	24	9.4	56	4 Nor.	—	18.0
				Rescue....	8.7	103	23	9.6	58	2 Nor.	—	17.0
				Pelissier....	12.4	103	24	9.4	64	3 C.W.	—	16.9
				Stewart....	10.9	104	25	9.4	63	1 C.W.	—	17.2

Necessary difference—1.0 bushel.

PERCY C. FORSBERG, TICHFIELD												
2B (N).....	10	5	B	Thatcher....	6.1	—	12	7.2	56	4 Nor.	—	18.5
				Rescue....	4.5	—	13	8.8	59	2 Nor.	—	18.5
				Pelissier....	2.9	—	12	8.6	62	3 C.W.	—	17.7
				Stewart....	2.1	—	12	7.2	61	2 C.W.	—	18.3

Damaged by grasshoppers.

WESLEY J. WANKEL, LOREBURN												
2B (N).....	10	6	A	Thatcher....	6.6	116	26	7.0	50	6 Sp.	—	18.9
				Rescue....	6.4	116	23	7.2	53	4 Sp.	—	19.0
				Pelissier....	7.3	123	28	8.8	59	3 C.W.	—	19.8
				Stewart....	6.3	121	27	8.0	58	3 C.W.	—	20.3

No significant grain yield difference between varieties.

RONALD BANKS, DAVIDSON												
2B (S).....	10	7	A	Thatcher....	18.6	102	37	8.2	59	3 Nor.	Bl., F.	15.0
				Rescue....	21.4	103	40	7.0	60	4 Nor.	D., G., F.	14.5
				Pelissier....	29.1	108	44	7.8	56	5 C.W.	D., G., F.	14.3
				Stewart....	28.4	107	45	7.4	62	4 C.W.	G., F.	13.9

Necessary difference—4.1 bushels.

EMIL JURISTA, LAURA												
2B (N).....	10	10	A	Thatcher....	9.0	79	25	9.2	54	4 Sp.	—	19.3
				Rescue....	6.9	85	25	9.8	59	2 Nor.	—	18.6
				Pelissier....	5.6	90	25	9.4	62	3 C.W.	—	18.3
				Stewart....	4.3	91	25	9.4	61	2 C.W.	—	18.7

Necessary difference—.8 bushel.

Tests discarded on account of damage by drought, pests, hail, or other causes.

10	1	A	Teddy Zurowski, Holdfast.
10	8	A	Rudy Gross, Renown.
10	8	B	Peter H. Stewart, Simpson.

WHEAT POOL DISTRICT 11

Cereal Variety Zone	Dist.	Sub-Dist.	Test designation	Varieties	Yield bus. per acre	Days seed-ing to ripening	Plant height in inches	Straw strength	Lbs. per measured bushel	Com-mercial grades	Grading remarks	Protein content in per-centage
JOHN A. BEATTIE, WHITE BEAR												
1A.....	11	1	A	Thatcher.....	18.8	91	31	7.0	61	1 Nor.	—	15.7
				Rescue.....	18.5	91	31	9.0	62	1 Nor.	—	15.2
				Pelissier.....	24.5	100	34	9.0	65	3 C.W.	—	14.5
				Stewart.....	22.9	98	32	8.0	65	1 C.W.	—	15.4
Necessary difference—1.5 bushels.												
ROSS D. and LORNE A. CAMPBELL, ELROSE												
2F.....	11	2	A	Thatcher.....	9.3	84	19	8.4	55	4 Sp.	—	17.6
				Rescue.....	8.9	83	19	9.4	58	3 Nor.	I.	16.8
				Pelissier.....	10.0	92	21	9.2	63	3 C.W.	—	16.9
				Stewart.....	8.7	91	20	9.2	62	2 C.W.	G.	17.3
No significant grain yield difference between varieties.												
DONALD C. PEARSON, ESTON												
2F.....	11	3	A	Thatcher.....	26.1	106	36	8.4	63	2 Nor.	I.	14.8
				Rescue.....	23.9	106	36	8.2	63	1 Nor.	—	14.3
				Pelissier.....	34.7	112	42	9.8	66	3 C.W.	—	13.9
				Stewart.....	33.7	111	41	9.4	66	1 C.W.	—	13.3
Necessary difference—1.9 bushels.												
B. RONALD NIELSEN, TYNER												
1A.....	11	3	B	Thatcher.....	13.8	90	—	—	60	1 Nor.	—	15.4
				Rescue.....	14.0	93	—	—	62	1 Nor.	—	14.8
				Pelissier.....	20.8	94	—	—	63	3 C.W.	—	14.4
				Stewart.....	20.0	94	—	—	65	1 C.W.	—	14.7
Necessary difference—2.6 bushels.												
ALLEN W. FOLLENSBEE, GLIDDEN												
1A.....	11	3	C	Thatcher.....	22.9	102	32	9.0	61	2 Nor.	Bl.	14.4
				Rescue.....	20.8	106	34	9.0	62	2 Nor.	Bl.	14.1
				Pelissier.....	33.0	110	40	10.0	66	3 C.W.	—	12.8
				Stewart.....	30.0	109	38	10.0	66	1 C.W.	—	13.8
Necessary difference—2.3 bushels.												
ROBERT L. SHIPLEY, JR., MANTARIO												
1B.....	11	4	A	Thatcher.....	15.0	—	29	6.6	58	2 Nor.	—	15.4
				Rescue.....	15.4	—	30	8.2	60	2 Nor.	Bl.	13.9
				Pelissier.....	22.3	—	33	8.8	65	3 C.W.	—	14.6
				Stewart.....	21.5	—	37	8.0	64	2 C.W.	Bl.	15.4
Necessary difference—3.2 bushels.												
CLARENCE A. COLLINS, ROSETOWN												
2F.....	11	7	A	Thatcher.....	12.1	101	22	9.2	57	3 Nor.	Bl.	17.3
				Rescue.....	11.3	101	21	9.0	58	2 Nor.	Bl.	17.0
				Pelissier.....	11.1	103	25	7.8	63	3 C.W.	—	15.6
				Stewart.....	7.4	102	23	8.2	63	1 C.W.	—	16.5
Necessary difference—1.6 bushels.												
THOMAS J. SCRIVENS, ROSETOWN												
2D.....	11	7	B	Thatcher.....	4.9	—	—	—	59	2 Nor.	—	15.4
				Rescue.....	5.9	—	—	—	60	2 Nor.	Bl.	14.7
				Pelissier.....	7.2	—	—	—	65	3 C.W.	—	12.8
				Stewart.....	4.6	—	—	—	64	1 C.W.	—	13.7
Necessary difference—1.2 bushels.												
JACOB WICHERT, FISKE												
1A *.....	11	8	A	Thatcher.....	12.0	109	22	6.4	61	1 Nor.	—	14.9
				Rescue.....	13.3	110	23	6.2	62	1 Nor.	—	14.1
				Pelissier.....	13.1	112	25	8.0	65	3 C.W.	—	13.5
				Stewart.....	14.0	112	25	8.6	66	1 C.W.	—	14.1
No significant grain yield difference between varieties.												
ALEX. H. BARRETT, FISKE												
1A *.....	11	8	B	Thatcher.....	8.0	89	14	8.0	58	2 Nor.	Bl.	16.5
				Rescue.....	8.0	89	14	8.0	59	3 Nor.	I., Bl.	16.5
				Pelissier.....	7.5	89	17	8.0	63	3 C.W.	—	14.8
				Stewart.....	8.2	89	17	8.0	64	1 C.W.	—	15.0
No significant grain yield difference between varieties.												
Tests discarded on account of damage by drought, pests, hail, or other causes.												
	11	6	A	Douglas McKay, Brock.								

1A *—Note: This test was placed in zone group 1B and 1A * for analysis.

WHEAT POOL DISTRICT 12

Cereal Variety Zone	Dist.	Sub-Dist.	Test designation	Varieties	Yield bus. per acre	Days seed-ing to ripening	Plant height in inches	Straw strength	Lbs. per measured bushel	Com-mercial grades	Grading remarks	Protein content in per-centage
PHYLLIS M. POTTER, BIGGAR												
2D.....	12	1	A	Thatcher.....	11.4	114	23	8.8	59	2 Nor.	—	17.4
				Rescue.....	10.9	117	24	9.4	59	2 Nor.	—	16.8
				Pelissier.....	17.0	121	28	10.0	59	4 C.W.	G., I.	16.7
				Stewart.....	14.0	117	27	8.8	60	3 C.W.	G., I.	17.2
Damaged by birds.												
RUDOLPH C. EGERT, CANDO												
2D.....	12	2	A	Thatcher.....	4.2	107	18	10.0	60	1 Nor.	—	16.4
				Rescue.....	4.6	107	20	9.6	60	1 Nor.	—	16.3
				Pelissier.....	5.1	107	23	8.4	62	3 C.W.	—	15.8
				Stewart.....	4.7	107	23	9.0	62	1 C.W.	—	16.1
No significant grain yield difference between varieties.												
ALLAN R. SANDERS, RUTHILDA												
2D.....	12	3	B	Thatcher....	6.0	—	—	—	58	3 Nor.	Bl.	15.3
				Rescue.....	6.3	—	—	—	59	2 Nor.	—	15.3
				Pelissier....	6.1	—	—	—	63	3 C.W.	—	14.3
				Stewart.....	4.3	—	—	—	61	2 C.W.	—	15.2
Necessary difference—.8 bushel.												
ROBERT L. CHARTERIS, DODSLAND												
2D.....	12	4	A	Thatcher.....	15.8	99	23	10.0	63	1 Nor.	—	13.8
				Rescue.....	13.7	99	24	9.0	63	1 Nor.	—	13.6
				Pelissier.....	16.4	111	26	9.0	63	3 C.W.	—	13.4
				Stewart.....	14.6	107	26	9.0	63	1 C.W.	—	13.7
Necessary difference—1.3 bushels.												
CHARLES R. ZUNTI, LUSELAND												
2D.....	12	5	A	Thatcher.....	14.8	—	—	—	63	4 Nor.	F., G.	14.7
				Rescue.....	13.2	—	—	—	61	3 Nor.	F.	14.8
				Pelissier.....	14.8	—	—	—	63	3 C.W.	—	14.4
				Stewart.....	17.1	—	—	—	65	2 C.W.	G.	14.2
No significant grain yield difference between varieties.												
W. LAWRENCE FEIL, CACTUS LAKE												
2D.....	12	6	A	Thatcher.....	10.4	93	18	9.0	60	2 Nor.	G.	15.1
				Rescue.....	9.8	93	20	9.0	61	2 Nor.	I.	14.7
				Pelissier.....	7.5	97	21	8.0	61	3 C.W.	—	14.9
				Stewart.....	4.4	94	21	8.2	61	2 C.W.	—	15.6
Necessary difference—1.7 bushels.												
DONALD R. CRERAR, WINTER												
3E.....	12	7	A	Thatcher.....	5.0	—	—	—	53	4 Sp.	—	20.0
				Saunders....	5.3	—	—	—	52	5 Sp.	—	20.4
				Redman.....	5.0	—	—	—	52	5 Sp.	—	20.0
				Regent.....	5.2	—	—	—	51	5 Sp.	—	20.3
No significant grain yield difference between varieties.												
PETER G. GERES, MARSDEN												
3E.....	12	8	A	Thatcher.....	20.3	95	27	7.4	59	2 Nor.	—	15.7
				Saunders....	19.2	95	26	6.8	59	2 Nor.	—	15.1
				Redman.....	18.2	95	26	8.4	58	2 Nor.	—	15.6
				Regent.....	17.3	95	26	8.4	59	2 Nor.	—	16.1
Necessary difference—1.4 bushels.												
Tests discarded on account of damage by drought, pests, hail, or other causes.												
	12	1	B	Lona Wood, Neola.								
	12	3	A	Floyd Johnson, Landis.								
	12	9	A	Ronald D. Love, Wilkie.								

WHEAT POOL DISTRICT 13

WILLIS M. YOUNG, YOUNG												
2B (N).....	13	2	A	Thatcher....	5.3	—	—	—	56	4 Nor.	—	16.9
				Rescue.....	5.2	—	—	—	58	2 Nor.	—	16.9
				Pelissier....	4.8	—	—	—	62	3 C.W.	—	15.4
				Stewart.....	4.1	—	—	—	61	2 C.W.	—	16.6
No significant grain yield difference between varieties.												
MARJORIE I. BERG, ALLAN												
2B (N).....	13	3	A	Thatcher.....	5.1	—	—	—	59	2 Nor.	I.	16.9
				Rescue.....	5.8	—	—	—	60	2 Nor.	I.	16.7
				Pelissier....	5.0	—	—	—	62	3 C.W.	—	15.9
				Stewart.....	3.8	—	—	—	61	3 C.W.	G., I.	16.4
Necessary difference—.8 bushel.												

Wheat Pool District 13—Continued

Cereal Variety Zone	Dist.	Sub-Dist.	Test designation	Varieties	Yield bus. per acre	Days seed- ing to ripening	Plant height in inches	Straw strength	Lbs. per meas- ured bushel	Com- mercial grades	Grading remarks	Protein content in per- centage
WILLIAM PROCYSHEN, BLUCHER												
2B (N).....	13	4	A	Thatcher.....	1.3	—	—	—	53	4 Sp.	—	18.2
				Rescue.....	.9	—	—	—	(A)	(E)4 Sp.	—	18.2
				Pelissier.....	.8	—	—	—	(A)	(E)4C.W.	—	17.1
				Stewart.....	.7	—	—	—	(A)	(E)4C.W.	—	17.7
Badly damaged by hail and drought. Samples bulked.												
MENNO B. FAST, LANGHAM												
3E.....	13	5	A	Thatcher.....	7.2	89	10	7.0	53	4 Sp.	—	18.5
				Saunders.....	2.9	89	16	10.0	53	4 Sp.	—	18.1
				Redman.....	2.8	89	15	9.0	51	5 Sp.	—	17.9
				Regent.....	3.1	89	15	8.0	53	4 Sp.	—	17.4
No significant grain yield difference between varieties.												
VERNE E. SHOCKEY, VANSCOY												
2B (N).....	13	6	A	Thatcher.....	1.4	98	14	—	52	5 Sp.	—	18.3
				Rescue.....	1.0	98	14	—	(A)	(E)4 Sp.	—	18.5
				Pelissier.....	.9	106	15	—	(A)	(E)3C.W.	—	18.1
				Stewart.....	.9	106	15	—	(A)	(E)2C.W.	—	18.3
Badly damaged by cattle.												
MAURICE A. WEIR, ABERDEEN												
2B (N).....	13	8	A	Thatcher.....	15.0	88	—	10.0	61	1 Nor.	—	14.1
				Rescue.....	12.8	88	—	10.0	63	1 Nor.	—	14.4
				Pelissier.....	12.7	90	—	9.0	65	3 C.W.	—	14.0
				Stewart.....	13.1	90	—	8.0	66	1 C.W.	—	14.7
No significant grain yield difference between varieties.												
MARIAN RENNEBERG, CUDWORTH												
3C (W).....	13	9	A	Thatcher.....	11.0	78	20	—	58	3 Nor.	I.	19.2
				Saunders.....	10.6	77	20	—	59	3 Nor.	I.	17.5
				Redman.....	10.1	79	24	—	60	3 Nor.	I.	17.5
				Regent.....	9.8	78	22	—	59	3 Nor.	I.	18.0
No significant grain yield difference between varieties.												
EVERARD H. HESSDORFER, ST. BENEDICT												
3C (W).....	13	10	A	Thatcher.....	22.8	97	26	9.6	63	3 Nor.	G., I.	16.3
				Saunders.....	22.3	95	25	9.6	63	3 Nor.	G., I.	17.1
				Redman.....	22.2	96	25	9.8	62	3 Nor.	G., I.	16.5
				Regent.....	20.1	96	25	9.2	63	3 Nor.	G., I.	17.2
No significant grain yield difference between varieties.												
JEROME BOEHM, LAKE LENORE												
3B (W).....	13	11	A	Thatcher.....	8.7	—	—	—	58	3 Nor.	Bl.	—
				Saunders.....	7.6	—	—	—	57	3 Nor.	—	—
				Redman.....	8.8	—	—	—	56	4 Nor.	—	—
				Regent.....	7.5	—	—	—	57	3 Nor.	—	—
Not included in zone analysis.												
Tests discarded on account of damage by drought, pests, hail, or other causes.												
	13	10	B	Ernest J. Schneberger, Reynaud.								

WHEAT POOL DISTRICT 14

JAMES H. ENRIGHT, LINTLAW												
3B (E).....	14	1	A	Thatcher.....	21.6	—	—	—	62	3 Nor.	G., I.	12.0
				Saunders.....	21.6	—	—	—	61	3 Nor.	G., I.	12.0
				Redman.....	23.4	—	—	—	62	4 Nor.	D., I.	12.2
				Regent.....	22.2	—	—	—	62	4 Nor.	D., G.	13.0
No significant grain yield difference between varieties.												
ROY AMUNDSON, NAICAM												
3B (W).....	14	3	A	Thatcher.....	42.4	89	24	9.6	61	4 Nor.	F., I.	14.8
				Saunders.....	38.1	90	25	9.6	59	4 Nor.	F., I.	15.0
				Redman.....	37.5	90	24	10.0	61	4 Nor.	F., I.	15.3
				Regent.....	35.9	89	27	9.5	61	4 Nor.	F., I.	16.1
Necessary difference—2.9 bushels.												

(A)=Insufficient to calculate bushel weight.

(E)=Estimated grade.

Wheat Pool District 14—Continued

Cereal Variety Zone	Dist.	Sub-Dist.	Test designation	Varieties	Yield bus. per acre	Days seed- ing to ripening	Plant height in inches	Straw strength	Lbs. per meas- ured bushel	Com- mercial grades	Grading remarks	Protein content in per centage
ERNEST O. HAGE, DAHLTON												
3B (W).....	14	4	A	Thatcher.....	35.2	98	28	8.6	63	2 Nor.	G., I.	15.3
				Saunders.....	34.1	96	27	8.6	62	3 Nor.	G., I.	14.8
				Redman.....	35.7	97	28	7.6	61	4 Nor.	D., G., I.	15.1
				Regent.....	34.9	97	28	8.0	63	3 Nor.	G., I.	15.4
No significant grain yield difference between varieties.												
EDGAR ASPEN, CHELAN												
4A.....	14	6	A	Thatcher.....	30.3	—	—	9.0	64	1 Nor.	—	16.2
				Saunders.....	31.3	—	—	9.0	63	1 Nor.	—	16.6
				Redman.....	28.6	—	—	9.0	62	2 Nor.	I.	16.0
				Regent.....	28.1	—	—	9.0	63	1 Nor.	—	16.3
Necessary difference—1.8 bushels.												
MICHAEL NAWROCKI, SYLVANIA												
3F.....	14	7	A	Thatcher.....	33.3	108	30	9.1	63	2 Nor.	I.	15.2
				Saunders.....	29.4	108	26	8.0	62	3 Nor.	G., I.	14.9
				Redman.....	29.4	110	27	8.4	60	3 Nor.	G., I.	14.9
				Regent.....	26.9	110	27	8.4	62	3 Nor.	G., I.	16.1
No significant grain yield difference between varieties.												
GARNET A. WOOLSEY, CLEMENS												
3F.....	14	8	A	Thatcher.....	25.3	78	—	9.0	62	3 Nor.	G., I.	14.9
				Saunders.....	21.0	79	—	7.4	61	3 Nor.	G., I.	15.5
				Redman.....	23.4	79	—	6.8	60	4 Nor.	G., I.	15.7
				Regent.....	21.1	80	—	7.8	61	3 Nor.	G., I.	16.2
Necessary difference—2.2 bushels.												
MARTIN T. MARCHILDON, ZENON PARK												
3F.....	14	10	A	Thatcher.....	14.3	83	18	10.0	60	5 Nor.	F., G.	15.0
				Saunders.....	12.0	81	17	10.0	60	5 Nor.	F., G.	14.9
				Redman.....	14.7	80	19	9.6	61	5 Nor.	F., G.	15.2
				Regent.....	13.6	82	19	9.8	61	5 Nor.	F., G.	16.0
Necessary difference—1.3 bushels.												
ERNEST S. RIGHI, LEACROSS												
3F.....	14	10	B	Thatcher.....	17.9	88	20	9.2	62	4 Nor.	D., I.	15.8
				Saunders.....	19.3	86	21	8.8	64	4 Nor.	D., I.	15.3
				Redman.....	19.2	90	21	9.6	62	No. 5	D., I.	15.6
				Regent.....	18.6	87	20	9.4	63	4 Nor.	D., I.	16.5
No significant grain yield difference between varieties.												
Tests discarded on account of damage by drought, pests, hail, or other causes.												
	14	5	A	Ronald Choquette, Perigord,								
	14	9	A	John Miazga, Lenville.								

WHEAT POOL DISTRICT 15

RUSSELL F. HUNTER, LANGHAM												
3E.....	15	4	A	Thatcher.....	10.4	89	20	8.0	61	3 Nor.	I.	14.3
				Saunders.....	8.2	90	20	8.6	60	2 Nor.	I.	14.1
				Redman.....	8.5	89	20	8.6	60	3 Nor.	I.	14.5
				Regent.....	7.0	90	18	7.8	59	2 Nor.	—	15.0
No significant grain yield difference between varieties.												
WALTER H. FRIESEN, ROSTHERN												
3E.....	15	4	B	Thatcher.....	4.9	93	13	8.2	62	1 Nor.	—	16.7
				Saunders.....	4.5	93	15	8.6	61	1 Nor.	—	16.8
				Redman.....	5.2	93	14	8.0	61	1 Nor.	—	17.0
				Regent.....	4.7	93	14	7.8	61	1 Nor.	—	17.0
Necessary difference—.4 bushel.												
IRVIN W. JUNG, MONT NEBO												
3E.....	15	7	A	Thatcher.....	16.9	—	—	—	64	1 Nor.	—	16.1
				Saunders.....	13.2	—	—	—	63	1 Nor.	—	15.3
				Redman.....	15.6	—	—	—	62	1 Nor.	—	15.4
				Regent.....	13.4	—	—	—	63	1 Nor.	—	16.3
Necessary difference—1.4 bushels.												
MELVIN SKAROS, CANWOOD												
3E.....	15	7	B	Thatcher.....	15.9	82	25	10.0	60	3 Nor.	I.	17.5
				Saunders.....	18.0	80	26	10.0	59	2 Nor.	—	17.0
				Redman.....	16.8	82	26	10.0	59	3 Nor.	I.	16.6
				Regent.....	16.1	82	26	10.0	60	3 Nor.	I.	17.5
No significant grain yield difference between varieties.												

HISTOGRAMS SHOWING RELATIVE WHEAT YIELDS



ZONE - 1A



1B & 1A *



2A



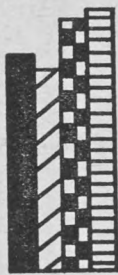
2B(SOUTH)



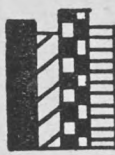
ZONE 2B(NORTH)



2C & 2D



2E



2F



ZONE 3A



3B & 3C(EAST)



3B & 3C(WEST)



3E



ZONE 3F



4A & 4B

THATCHER



RESCUE



PELISSIER



STEWART-



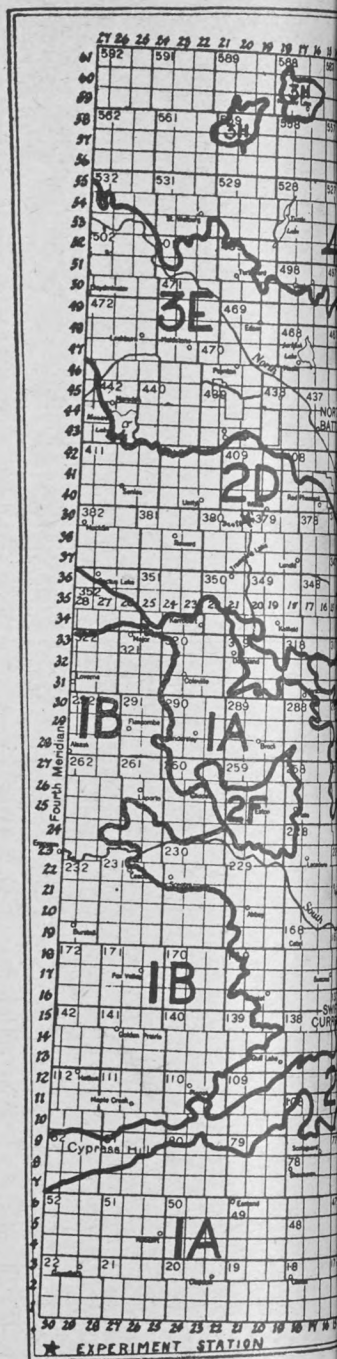
SAUNDERS



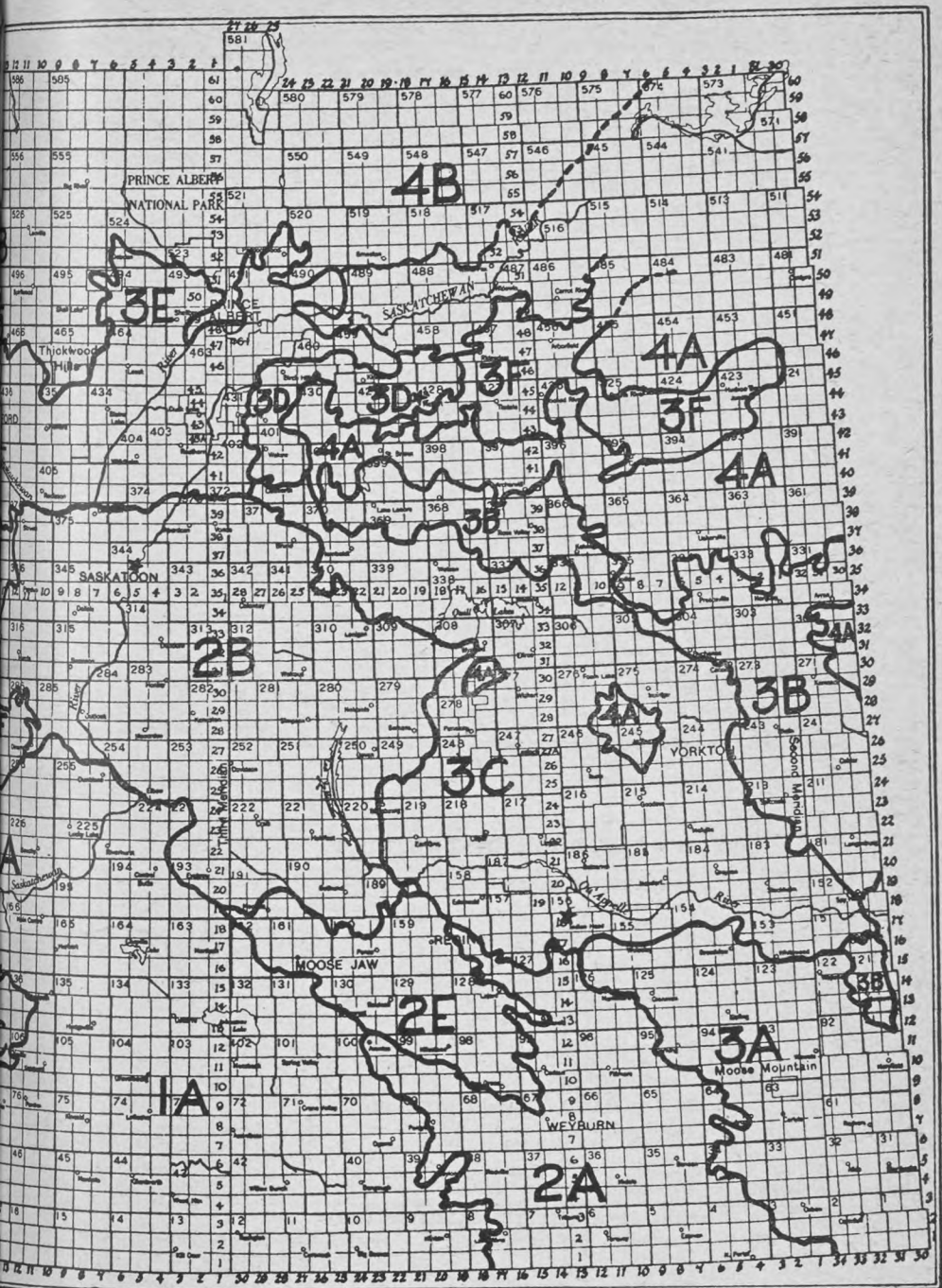
REDMAN -



REGENT -



Cereal Variety Zones of Saskatchewan



Wheat Pool District 15—Continued

Cereal Variety Zone	Dist.	Sub-Dist.	Test designation	Varieties	Yield bus. per acre	Days seed-ing to ripening	Plant height in inches	Straw strength	Lbs. per measured bushel	Com-mercial grades	Grading remarks	Protein content in per-centage
HARVEY WENDEL, HOLBEIN												
3E.....	15	8	A	Thatcher....	6.4	—	15	10.0	61	1 Nor.	—	16.0
				Saunders....	7.6	—	17	10.0	62	1 Nor.	—	15.6
				Redman....	8.2	—	16	10.0	61	2 Nor.	S. I.	15.5
				Regent....	7.6	—	16	10.0	62	1 Nor.	—	16.2
Necessary difference—.8 bushel.												
ELMER PACZAY, PADDOCKWOOD												
3E.....	15	9	A	Thatcher....	5.1	88	15	10.0	59	2 Nor.	—	16.3
				Saunders....	6.3	90	18	10.0	59	2 Nor.	—	15.7
				Redman....	5.7	93	19	10.0	58	2 Nor.	—	16.3
				Regent....	5.9	93	19	10.0	59	2 Nor.	—	16.9
Necessary difference—.5 bushel.												
ALEXANDER NAKONECHNY, FOXFORD												
4A.....	15	10	A	Thatcher....	10.1	98	14	10.0	62	1 Nor.	—	15.5
				Saunders....	11.1	91	17	10.0	63	1 Nor.	—	14.7
				Redman....	11.1	98	18	10.0	62	1 Nor.	—	15.2
				Regent....	9.2	93	14	10.0	62	1 Nor.	—	17.0
Necessary difference—.9 bushel.												
SOPHIE HRENYK, MEATH PARK												
4B.....	15	10	B	Thatcher....	3.1	98	12	10.0	60	1 Nor.	—	13.8
				Saunders....	3.5	98	12	10.0	60	1 Nor.	—	13.8
				Redman....	3.7	98	12	10.0	59	2 Nor.	—	14.0
				Regent....	4.0	98	12	10.0	59	2 Nor.	—	14.4
Necessary difference—.4 bushel.												
JAMES D. SIMPSON, WHITE FOX												
4B.....	15	11	A	Thatcher....	24.6	99	30	9.4	63	1 Nor.	—	13.4
				Saunders....	24.9	93	30	9.6	64	2 Nor.	I.	13.9
				Redman....	24.2	96	30	9.6	62	2 Nor.	I.	14.5
				Regent....	23.4	97	30	9.4	63	1 Nor.	—	14.7
No significant grain yield difference between varieties.												
K. DOUGLAS MUNRO, GARRICK												
4A.....	15	11	B	Thatcher....	14.6	94	19	8.8	62	2 Nor.	G., I.	16.2
				Saunders....	12.8	93	19	8.0	62	3 Nor.	G., I.	15.9
				Redman....	13.8	95	19	9.6	61	3 Nor.	G., I.	16.1
				Regent....	13.8	94	19	9.8	62	3 Nor.	G., I.	16.6
No significant grain yield difference between varieties.												
Tests discarded on account of damage by drought, pests, hail, or other causes.												
	15	5	A	T. Churchill	W. Bond, Leask.							

WHEAT POOL DISTRICT 16

KENNETH W. ZALESCHUK, MAYMONT												
3E.....	16	1	A	Thatcher....	2.9	—	—	—	59	3 Nor.	I.	16.6
				Saunders....	3.1	—	—	—	57	4 Nor.	I.	16.9
				Redman....	2.9	—	—	—	58	3 Nor.	I.	17.0
				Regent....	3.1	—	—	—	59	3 Nor.	I.	17.7
No significant grain yield difference between varieties.												
GEORGE M. SYMCHYCH, HAFFORD												
3E.....	16	2	A	Thatcher....	2.5	—	—	—	56	4 Nor.	—	16.5
				Saunders....	2.0	—	—	—	56	4 Nor.	—	16.4
				Redman....	2.1	—	—	—	54	No. 5	I.	16.7
				Regent....	2.1	—	—	—	55	4 Sp.	—	16.8
No significant grain yield difference between varieties.												
JACK K. BOUMA, NORTH BATTLEFORD												
3E.....	16	3	A	Thatcher....	11.6	—	24	—	54	4 Sp.	—	20.4
				Saunders....	11.5	—	24	—	53	4 Sp.	—	20.1
				Redman....	10.5	—	24	—	54	4 Sp.	—	19.5
				Regent....	11.2	—	24	—	54	4 Sp.	—	20.4
No significant grain yield difference between varieties.												
LIONEL BLANCHETTE, JACK FISH LAKE												
3E.....	16	4	A	Thatcher....	7.8	—	—	—	57	3 Nor.	—	18.7
				Saunders....	8.3	—	—	—	56	4 Nor.	—	18.4
				Redman....	8.0	—	—	—	56	4 Nor.	—	18.0
				Regent....	7.4	—	—	—	56	4 Nor.	—	18.7
No significant grain yield difference between varieties.												

Wheat Pool District 16—Continued

Cereal Variety Zone	Dist.	Sub- Dist.	Test design- nation	Varieties	Yield bus. per acre	Days seed- ing to ripening	Plant height in inches	Straw strength	Lbs. per meas- ured bushel	Com- mercial grades	Grading remarks	Protein content in per centage
REGINALD G. BLACK, PAYNTON												
3E.....	16	5	A	Thatcher.....	31.8	—	—	—	60	3 Nor.	I.	13.8
				Saunders.....	26.8	—	—	—	61	3 Nor.	I.	13.5
				Redman.....	26.9	—	—	—	59	3 Nor.	I.	13.8
				Regent.....	26.1	—	—	—	61	3 Nor.	I.	14.4
Necessary difference—1.6 bushels.												
NELLIE M. JANUS, WASECA												
3E.....	16	5	B	Thatcher.....	8.2	77	21	7.4	62	1 Nor.	—	15.6
				Saunders.....	7.1	80	19	8.6	62	1 Nor.	—	15.2
				Redman.....	6.5	81	18	9.2	61	2 Nor.	I.	15.2
				Regent.....	6.9	83	19	8.8	61	1 Nor.	—	15.3
No significant grain yield difference between varieties.												
KATHLEEN NOYCE, LLOYDMINSTER												
3E.....	16	6	A	Thatcher.....	19.1	—	18	7.0	63	2 Nor.	I.	14.2
				Saunders.....	16.1	—	18	7.4	63	3 Nor.	G., I.	14.1
				Redman.....	17.6	—	18	8.6	62	3 Nor.	G., I.	14.2
				Regent.....	16.4	—	19	8.0	63	2 Nor.	I.	15.3
Necessary difference—1.3 bushels.												
ANTHONY P. SUTTON, MARSHALL												
3E.....	16	6	B	Thatcher.....	15.3	—	21	6.6	60	4 Nor.	G., F.	15.3
				Saunders.....	14.2	—	21	7.2	60	4 Nor.	G., F.	15.0
				Redman.....	12.9	—	23	7.2	59	4 Nor.	G., F.	14.9
				Regent.....	12.3	—	22	6.6	59	4 Nor.	G., F.	15.9
Necessary difference—1.3 bushels.												
TARAS HAWRYLIW, GLASLYN												
4B.....	16	9	A	Thatcher.....	28.7	98	31	8.6	61	3 Nor.	I., Stch.	12.1
				Saunders.....	29.1	97	30	8.8	63	2 Nor.	Stch.	11.2
				Redman.....	28.7	98	32	8.6	62	3 Nor.	I., Stch.	11.5
				Regent.....	25.4	97	32	8.4	64	1 Nor.	—	12.2
Necessary difference—1.3 bushels.												
ROBERT CHALIFOUR, LEOVILLE												
4B.....	16	10	A	Thatcher.....	9.1	94	21	9.6	64	2 Nor.	I.	16.1
				Saunders.....	9.5	94	22	9.8	64	2 Nor.	I.	15.3
				Redman.....	10.4	94	22	9.8	63	3 Nor.	G., I.	15.1
				Regent.....	9.1	94	22	9.8	64	3 Nor.	G., I.	16.9
No significant grain yield difference between varieties.												
GEORGE WILICK, MILDRED												
4B.....	16	10	B	Thatcher.....	22.9	—	—	—	65	1 Nor.	—	13.4
				Saunders.....	22.6	—	—	—	64	1 Nor.	—	12.8
				Redman.....	21.5	—	—	—	63	1 Nor.	—	13.6
				Regent.....	20.5	—	—	—	64	1 Nor.	—	14.3
No significant grain yield difference between varieties.												
JUNE E. BARNES, RAPID VIEW												
4B.....	16	11	A	Thatcher.....	35.2	—	—	—	63	3 Nor.	D., I.	14.7
				Saunders.....	31.6	—	—	—	63	3 Nor.	D., I.	14.9
				Redman.....	32.9	—	—	—	63	3 Nor.	D., I.	14.5
				Regent.....	34.3	—	—	—	63	3 Nor.	D., I.	15.3
Samples bulked.												
BOBBY McKAY, DORINTOSH												
4B.....	16	11	B	Thatcher.....	12.1	—	24	8.0	61	2 Nor.	S. I.	13.2
				Saunders.....	11.3	—	24	8.2	61	2 Nor.	S. I.	13.3
				Redman.....	12.7	—	27	8.2	61	3 Nor.	I.	12.9
				Regent.....	11.3	—	25	8.2	62	2 Nor.	S. I.	13.9
No significant grain yield difference between varieties.												
Tests discarded on account of damage by drought, pests, hail, or other causes.												
16	1	B	Wilfred C. Gelinas, Fielding.									
16	7	A	Louis C. H. De Montarnal, Butte St. Pierre.									
16	10	C	Norman Soiseth, Mayfair.									

OAT TESTS

DESCRIPTION OF VARIETIES

Ajax was originated in 1930 at the Dominion Laboratory of Cereal Breeding, Winnipeg, from the cross Victory X Hajira. It is an early maturing variety, resistant to most races of stem rust and moderately resistant to leaf rust and smut.

Beacon is a new variety developed at the Central Experimental Farm, Ottawa, from crossing Gold Rain-Alaska with (Vanguard-Erban X R.L. 453) X Vanguard. Beacon is resistant to crown rust, moderately resistant to stem rust and moderately susceptible to smut.

Exeter was originated in 1929 at the Dominion Laboratory of Cereal Breeding, Winnipeg, from the cross Victory X Rusota. Exeter is a late maturing variety, resistant to stem rust and moderately susceptible to leaf rust and smut.

Garry is a new variety originated at the Dominion Laboratory of Cereal Breeding, Winnipeg, from the cross Victory X R.L. 1272. The line R.L. 1272 is from the cross Victoria X (Hajira X Banner). Garry is highly resistant to stem rust, crown rust and smut.

VC-15 is a new variety developed at the Field Husbandry Department, University of Saskatchewan, from the cross Victory X V.R.M.V. The latter strain was developed by the United States Department of Agriculture, from the double cross (Victoria X Richland) X (Markton X Victory). VC-15 is resistant to smut and moderately resistant to stem rust.

VC-30 is another variety developed at the University of Saskatchewan from the cross Victory X V.R.M.V. VC-30 is resistant to smut and moderately resistant to stem rust.

ANALYSIS OF DATA

Oat tests were conducted throughout the eastern, north-eastern and northern areas of the Province, comprised of Cereal Variety Zones 3A, 3B, 3C, 3D, 3E, 3F, 4A and 4B. (See Cereal Variety Zone map on page 37). For purposes of analysis, the entire area was divided into six zone groups. The following summaries show the average performance of each variety as calculated for the different zone groups.

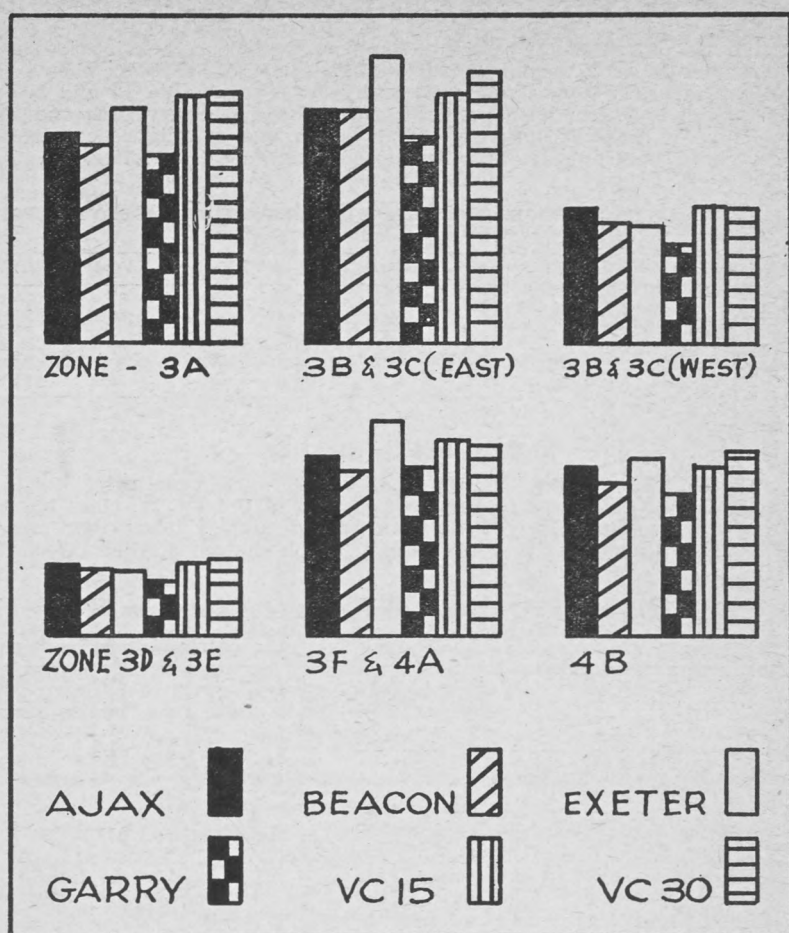
GRAIN YIELD

Table No. 25. A general average of all tests shows that **VC-30** excelled in yield. It was followed by **Exeter**, **VC-15**, **Ajax**, **Beacon** and **Garry** in that order. **VC-15** and **VC-30** produced relatively good yields in all zones. In no case did either variety rank lower than third place. **Exeter** gave an excellent performance except in zone groups 3B and 3C (West) and 3D and 3E where relatively light yields were produced by all varieties. In these two areas **Exeter** ranked fifth in yield. **Ajax**, however, when compared to the other varieties, gave its best performance in the zones where lighter yields occurred. **Beacon** proved generally inferior, in no case yielding better than fourth place. **Garry** was low in yield, placing last in five zones and second last in one.

TABLE No. 25.—AVERAGE YIELDS IN BUSHEL PER ACRE SUMMARIZED BY CEREAL VARIETY ZONES AND GROUPED ZONES.

Cereal Variety Zone	No. of Satisfactory Tests	Ajax	Beacon	Exeter	Garry	VC-15	VC-30	Necessary Difference in Bushels
3A.....	5	64.2	61.5	72.6	57.8	76.3	77.3	10.6
3B and 3C (East).....	7	71.8	71.2	88.4	63.4	76.9	83.6	6.9
3B and 3C (West).....	8	41.8	37.4	36.9	30.8	42.8	41.8	5.6
3D and 3E.....	10	21.9	20.3	19.9	16.7	22.1	23.2	3.2
3F and 4A.....	7	55.2	50.3	66.6	52.2	60.4	59.0	*
4B.....	5	52.1	47.3	54.9	44.0	52.2	57.7	9.4

*No significant grain yield difference between varieties.



HISTOGRAMS SHOWING OAT YIELDS BY CEREAL VARIETY ZONES

DAYS FROM SEEDING TO RIPENING

The number of days from seeding to ripening is shown for each variety in the zone summary tables. **Ajax** proved superior in this characteristic, ripening first in every zone. **Beacon** was generally the second variety to ripen and **VC-30** came third on an average basis. **Garry**, **VC-15**, and **Exeter** showed considerable variation but ripened later than **Ajax** and **Beacon** in every zone.

STRAW STRENGTH

Table No. 26. **Garry** excelled in straw strength in every zone except 4B, where it tied with several others for first place. Some variation was shown in the straw strength of the other varieties but all except **Exeter** were reasonably satisfactory in this characteristic. The straw of **Exeter** appeared slightly weak in most areas.

TABLE No. 26.—AVERAGE STRAW STRENGTH OF PLANTS ON BASIS 10 (STRONG) 0 (WEAK) SUMMARIZED BY CEREAL VARIETY ZONES

Cereal Variety Zone	Ajax	Beacon	Exeter	Garry	VC-15	VC-30
3A.....	9.1	9.1	8.3	9.3	9.0	8.9
3B and 3C (East).....	8.8	8.3	7.8	9.0	7.9	8.5
3B and 3C (West).....	9.1	9.2	9.3	9.5	8.9	9.3
3D and 3E.....	8.9	9.1	9.1	9.5	9.1	9.1
3F and 4A.....	8.9	8.9	8.2	9.2	9.1	9.1
4B.....	9.7	9.7	9.4	9.7	9.7	9.7

WEIGHT PER MEASURED BUSHEL

Table No. 27. Generally, the differences between varieties in bushel weight were not of a marked nature. An average of all tests shows that VC-30 was superior. It was followed closely, however, by VC-15 and Exeter. Beacon placed fourth in bushel weight with Ajax and Garry fifth and sixth respectively. With the exception of Garry, which was outweighed consistently in every zone, there appears little to choose between the varieties.

TABLE No. 27.—AVERAGE WEIGHT PER MEASURED BUSHEL SUMMARIZED BY CEREAL VARIETY ZONES

Cereal Variety Zone	Ajax	Beacon	Exeter	Garry	VC-15	VC-30
3A.....	35.2	34.8	35.6	33.8	34.4	35.0
3B and 3C (East).....	34.1	34.8	35.3	31.7	35.0	35.3
3B and 3C (West).....	33.0	32.3	34.3	31.1	33.6	33.3
3D and 3E.....	31.6	31.9	30.7	26.6	32.4	32.9
3F and 4A.....	36.0	35.9	36.3	34.9	37.0	36.9
4B.....	35.6	37.2	36.6	34.4	36.4	35.8

COMMERCIAL GRADES

Table No. 28. Exeter, VC-15, and VC-30 were practically equal in grading ability. No samples of Beacon appeared in the 1 C.W. class but this variety graded comparatively well. Ajax graded slightly lower than Beacon but once again Garry was the only variety which showed marked inferiority.

TABLE No. 28.—COMMERCIAL GRADES IN PERCENTAGE

	1 C.W.	2 C.W.	3 C.W.	1 Fd.	2 Fd.	3 Fd.
Ajax.....	—	13.3	40.0	11.1	31.1	4.5
Beacon.....	—	11.1	51.1	6.7	24.4	6.7
Exeter.....	2.2	11.1	48.9	11.1	20.0	6.7
Garry.....	—	6.7	28.9	11.1	35.5	17.8
VC-15.....	2.2	13.3	44.5	8.9	28.9	2.2
VC-30.....	2.2	11.1	48.9	13.3	22.3	2.2



THE OAT TEST OF WALTER ILNESKY, RANGER

SUMMARIZATION ACCORDING TO CEREAL VARIETY ZONES

TABLE No. 29.—SUMMARIZED RESULTS FOR ZONE 3A
(5 satisfactory tests)

	Ajax	Beacon	Exeter	Garry	VC-15	VC-30
Yield in bushels per acre.....	64.2	61.5	72.6	57.8	76.3	77.3
Days from seeding to ripening.....	89.7	93.0	96.7	95.3	93.3	94.7
Height of plants in inches.....	33.0	34.2	32.8	34.3	32.8	33.8
Straw strength.....	9.1	9.1	8.3	9.3	9.0	8.9
Bushel weight in pounds.....	35.2	34.8	35.6	33.8	34.4	35.0
Commercial grades in percentage:						
1 C.W.....	—	—	—	—	—	—
2 C.W.....	20.0	—	20.0	—	—	—
3 C.W.....	60.0	60.0	60.0	60.0	60.0	80.0
1 Feed.....	20.0	—	20.0	20.0	—	—
2 Feed.....	—	40.0	—	20.0	40.0	20.0
3 Feed.....	—	—	—	—	—	—
Necessary difference—10.6 bushels.						

Table No. 29. **VC-30** was high in yield. It exceeded Ajax, Beacon and Garry significantly. It ripened somewhat later than Ajax but proved satisfactory in other characteristics. **VC-15** ranked second in yield, outyielding Ajax, Beacon and Garry significantly. **VC-15** was comparatively low in bushel weight and grades and slightly short in straw. **Exeter** excelled in bushel weight, ranked third in yield and graded well. Its late maturity and comparatively weak straw were its most unfavorable characteristics. **Ajax** excelled in earliness, produced good bushel weight and graded well. It proved definitely inferior to VC-30 and VC-15, however, in yielding ability. **Beacon** ranked fifth in yield and showed no outstanding characteristics. **Garry** excelled in straw strength but its poor yield, low bushel weight and inferior grades more than offset this favorable feature.

TABLE No. 30.—SUMMARIZED RESULTS FOR ZONE GROUP 3B AND 3C (EAST)
(7 satisfactory tests)

	Ajax	Beacon	Exeter	Garry	VC-15	VC-30
Yield in bushels per acre.....	71.8	71.2	88.4	63.4	76.9	83.6
Days from seeding to ripening.....	91.4	91.7	96.9	93.4	95.4	94.1
Height of plants in inches.....	36.1	35.1	35.4	37.4	35.3	38.4
Straw strength.....	8.8	8.3	7.8	9.0	7.9	8.5
Bushel weight in pounds.....	34.1	34.8	35.3	31.7	35.0	35.3
Commercial grades in percentage:						
1 C.W.....	—	—	—	—	—	—
2 C.W.....	11.1	11.1	11.1	11.1	11.1	11.1
3 C.W.....	55.6	55.6	66.7	22.2	55.6	55.6
1 Feed.....	—	22.2	11.1	11.1	11.1	33.3
2 Feed.....	33.3	11.1	11.1	44.5	22.2	—
3 Feed.....	—	—	—	11.1	—	—
Necessary difference—6.9 bushels.						

Table No. 30. **Exeter** was high in yield exceeding all varieties except VC-30 by a significant margin. Exeter excelled in bushel weight and grades but its late maturity and comparative weakness of straw are disadvantages. **VC-30** ranked second in yield and produced excellent bushel weight. It graded comparatively well and proved satisfactory in other characteristics. **VC-15** showed relatively good bushel weight and grades but was slightly weak in straw and matured somewhat late. It outyielded three varieties but only in the case of Garry was the difference significant. **Ajax** matured early and showed good straw strength. It ranked fourth in yield, however, and its other characteristics were not outstanding. **Beacon** was fifth in yield. It ripened comparatively early but gave only a mediocre performance in other respects. **Garry** produced the strongest straw but was low in yield, bushel weight and grades.

TABLE No. 31.—SUMMARIZED RESULTS FOR ZONE GROUP 3B AND 3C (WEST)
(8 satisfactory tests)

	Ajax	Beacon	Exeter	Garry	VC-15	VC-30
Yield in bushels per acre.....	41.8	37.4	36.9	30.8	42.8	41.8
Days from seeding to ripening.....	84.0	85.7	90.7	88.8	87.8	87.1
Height of plants in inches.....	28.4	26.5	26.3	26.9	25.6	27.3
Straw strength.....	9.1	9.2	9.3	9.5	8.9	9.3
Bushel weight in pounds.....	33.0	32.3	34.3	31.1	33.6	33.3
Commercial grades in percentage:						
1 C.W.....	—	—	—	—	—	—
2 C.W.....	11.2	—	11.1	—	—	—
3 C.W.....	22.2	55.6	22.2	22.2	44.5	44.5
1 Feed.....	22.2	—	22.2	11.1	33.3	22.2
2 Feed.....	22.2	22.2	44.5	44.5	11.1	22.2
3 Feed.....	22.2	22.2	—	22.2	11.1	11.1
Necessary difference—5.6 bushels.						

Table No. 31. **VC-15** was high in yield. It exceeded **Exeter** and **Garry** by differences which were greater than the necessary difference for the area, but it failed to outyield any of the other varieties significantly. Its straw was comparatively short and slightly weak but **VC-15** proved satisfactory in bushel weight and graded reasonably well. **Ajax** tied with **VC-30** for second place in yielding ability. **Ajax** excelled in earliness and plant height. **VC-30** produced no outstanding features but gave a generally satisfactory performance. **Beacon** was fourth in yield. It matured fairly early and graded reasonably well but proved inferior to all except **Garry** in bushel weight. **Exeter** excelled in bushel weight and produced good grades. It was satisfactory in straw strength but was late in maturing and somewhat inferior in yield. **Garry** again was outyielded by all other varieties. It had excellent straw strength but proved inferior in bushel weight and grades and matured rather late.

TABLE NO. 32.—SUMMARIZED RESULTS FOR ZONE GROUP 3D AND 3E
(10 satisfactory tests)

	Ajax	Beacon	Exeter	Garry	VC-15	VC-30
Yield in bushels per acre.....	21.9	20.3	19.9	16.7	22.1	23.2
Days from seeding to ripening.....	82.4	85.5	86.0	87.0	86.3	85.1
Height of plants in inches.....	20.9	20.4	19.6	20.8	19.2	21.0
Straw strength.....	8.9	9.1	9.1	9.5	9.1	9.1
Bushel weight in pounds.....	31.6	31.9	30.7	26.6	32.4	32.9
Commercial grades in percentage:						
1 C.W.....	—	—	—	—	—	—
2 C.W.....	—	10.0	—	10.0	20.0	10.0
3 C.W.....	—	20.0	30.0	—	—	10.0
1 Feed.....	10.0	—	—	—	—	10.0
2 Feed.....	90.0	60.0	40.0	40.0	80.0	70.0
3 Feed.....	—	10.0	30.0	50.0	—	—
Necessary difference—3.2 bushels.						

Table No. 32. **VC-30** excelled in yield, bushel weight and plant height. These outstanding features combined with satisfactory straw strength and earliness gave **VC-30** a distinct superiority in Zone group 3D and 3E. **VC-15** ranked second in yield and bushel weight. It was slightly late in ripening and produced shorter straw than the other varieties but its general performance was above the average for the zone. **Ajax** was third in yield. Its early ripening characteristic was once again in evidence and this feature is important in the northerly areas where frost is a serious hazard. **Ajax** proved satisfactory in height and bushel weight but had slightly weaker straw than the other varieties. **Beacon** ranked fourth in yield. It proved satisfactory but not outstanding in other characteristics. **Exeter** gave an inferior performance in this area where moisture conditions were generally unfavorable. It ranked fifth in yield, was rather late in maturing and had relatively poor bushel weight. **Garry** produced strong straw but was distinctly inferior in most other characteristics.

TABLE NO. 33.—SUMMARIZED RESULTS FOR ZONE GROUP 3F AND 4A
(7 satisfactory tests)

	Ajax	Beacon	Exeter	Garry	VC-15	VC-30
Yield in bushels per acre.....	55.2	50.3	66.6	52.2	60.4	59.0
Days from seeding to ripening.....	87.9	88.1	90.0	91.1	91.0	90.0
Height of plants in inches.....	26.6	26.6	27.4	28.1	26.4	28.3
Straw strength.....	8.9	8.9	8.2	9.2	9.1	9.1
Bushel weight in pounds.....	36.0	35.9	36.3	34.9	37.0	36.9
Commercial grades in percentage:						
1 C.W.....	—	—	14.3	—	14.3	14.3
2 C.W.....	14.3	14.3	—	14.3	14.3	14.3
3 C.W.....	71.4	71.4	71.4	42.8	71.4	71.4
1 Feed.....	14.3	14.3	14.3	14.3	—	—
2 Feed.....	—	—	—	28.6	—	—
3 Feed.....	—	—	—	—	—	—

No significant grain yield difference between varieties.

Table No. 33. **Exeter** ranked first in yield. Its bushel weight and grades were fairly good but it proved weak in straw and matured later than Ajax and Beacon. **VC-15** ranked second in yield and excelled in bushel weight. It produced strong straw and graded well but matured rather late, a distinct disadvantage in this northerly area. **VC-30** was third in yield. It excelled in height and tied with VC-15 for first place in straw strength and grading ability. VC-30 produced good bushel weight and gave a generally satisfactory performance. Although **Ajax** yielded somewhat less than several other varieties, its early maturity and other satisfactory characteristics should be considered in the choice of a variety. **Garry** excelled in straw strength but its poor yield, late maturity, low bushel weight and inferior grades are serious disadvantages. **Beacon** ranked second to Ajax in earliness. Its performance in most characteristics proved satisfactory but in yielding ability, Beacon was inferior to all other varieties.

TABLE NO. 34.—SUMMARIZED RESULTS FOR ZONE 4B
(5 satisfactory tests)

	Ajax	Beacon	Exeter	Garry	VC-15	VC-30
Yield in bushels per acre.....	52.1	47.3	54.9	44.0	52.2	57.7
Days from seeding to ripening.....	91.5	93.0	94.8	94.5	97.0	92.3
Height of plants in inches.....	28.7	27.7	28.0	30.0	27.0	29.0
Straw strength.....	9.7	9.7	9.4	9.7	9.7	9.7
Bushel weight in pounds.....	35.6	37.2	36.6	34.4	36.4	35.8
Commercial grades in percentage:						
1 C.W.....	—	—	—	—	—	—
2 C.W.....	40.0	40.0	40.0	—	40.0	40.0
3 C.W.....	60.0	60.0	60.0	60.0	60.0	60.0
1 Feed.....	—	—	—	20.0	—	—
2 Feed.....	—	—	—	20.0	—	—
3 Feed.....	—	—	—	—	—	—

Necessary difference—9.4 bushels.

Table No. 34. **VC-30** outyielded all other varieties, exceeding Beacon and Garry by differences which are significant. VC-30 was slightly below average in bushel weight but produced good grades. It ranked second to Ajax in earliness and second to Garry in height. On the basis of these results it would appear that VC-30 may prove to be a suitable variety for use in Zone 4B but further tests will be necessary before the excellent results shown thus far are confirmed. **Exeter** ranked second in yield. It proved satisfactory in bushel weight and grades but its late maturity is a distinct handicap in Zone 4B. **VC-15** and **Ajax** practically tied for third place in yielding ability. Both varieties graded equally well but VC-15 had a slight advantage in bushel weight. Once again, however, Ajax ripened considerably earlier than any other variety and on this basis at least it has some merit for use in the northerly regions. VC-15, on the other hand, ripened somewhat late. **Beacon** was fifth in yield. It excelled in bushel weight and graded well but its other characteristics were not outstanding. **Garry** produced tall, strong straw but was definitely low in yield, bushel weight and grades.

TABLE NO. 35

Individual Summarized Results of All Tests—Oats

WHEAT POOL DISTRICTS 1 AND 6

Cereal Variety	Zone	Dist.	Sub- Dist.	Test desig- nation	Varieties	Yield bus. per acre	Days seed- ing to ripen- ing	Plant height in inches	Straw strength	Pounds per meas- ured bushel	Com- mercial grades	Grading remarks
Tests discarded on account of damage by drought, pests, hail, or other causes.												
1		1		B	Grant McPherson, Gainsborough.							
1		4		B	Albert K. King, Frobisher.							
1		10		B	Norman H. J. Brock, Wordsworth.							
6		8		B	Maurice J. Varin, Avonhurst.							

WHEAT POOL DISTRICT 7

JAMES M. ENNIS, FAIRLIGHT

3A.....	7	1	B	Ajax.....	37.7	90	33	9.0	35	3 C.W.	
				Beacon.....	41.3	92	34	10.0	35	3 C.W.	
				Exeter.....	51.7	94	31	10.0	36	3 C.W.	G.
				Garry.....	38.2	94	34	9.0	34	3 C.W.	
				VC-15.....	45.2	94	31	10.0	35	3 C.W.	
				VC-30.....	43.3	92	32	10.0	36	3 C.W.	W.

No significant grain yield difference between varieties.

T. ELVIN AXTEN, MOOSOMIN

3B(E)	7	2	B	Ajax.....	66.0	—	38	—	36	2 C.W.	
				Beacon.....	62.1	—	37	—	35	3 C.W.	
				Exeter.....	76.3	—	39	—	36	3 C.W.	G.
				Garry.....	57.1	—	39	—	36	2 C.W.	
				VC-15.....	76.2	—	36	—	33	2 Feed	
				VC-30.....	81.8	—	40	—	35	3 C.W.	

Necessary difference—9.8 bushels.

HERMAN H. PACHAL, KIPLING

3A.....	7	4	B	Ajax.....	52.7	—	25	—	35	1 Feed	S. H.
				Beacon.....	58.2	—	25	—	33	2 Feed	
				Exeter.....	61.0	—	25	—	34	1 Feed	S. H.
				Garry.....	55.7	—	26	—	34	1 Feed	S. H.
				VC-15.....	77.5	—	24	—	33	2 Feed	
				VC-30.....	71.3	—	24	—	32	2 Feed	

No significant grain yield difference between varieties.

JOHN G. HENGEN, PEEBLES

3A.....	7	6	B	Ajax.....	90.2	90	36	9.0	35	3 C.W.	G.
				Beacon.....	74.0	94	37	9.0	37	3 C.W.	G.
				Exeter.....	70.5	99	38	9.0	37	3 C.W.	G.
				Garry.....	66.3	98	38	9.0	35	3 C.W.	G.
				VC-15.....	85.1	92	36	9.0	36	3 C.W.	G.
				VC-30.....	90.7	98	38	9.0	36	3 C.W.	G.

No significant grain yield difference between varieties.

C. HENRY HOOD, WOLSELEY

3A.....	7	7	B	Ajax.....	91.5	89	38	9.3	35	3 C.W.	
				Beacon.....	102.1	93	41	8.3	37	3 C.W.	St.
				Exeter.....	102.4	97	37	6.0	37	2 C.W.	
				Garry.....	98.6	94	39	10.0	36	3 C.W.	St.
				VC-15.....	115.6	94	40	8.0	35	3 C.W.	
				VC-30.....	108.4	94	41	7.6	36	3 C.W.	St.

Necessary difference—9.1 bushels.

P. BRUCE COLEMAN, WHITEWOOD

3C(E)	7	8	B	Ajax.....	23.2	99	33	5.3	35	3 C.W.	
				Beacon.....	22.9	97	35	2.5	37	2 C.W.	
				Exeter.....	31.5	103	33	4.6	36	2 C.W.	
				Garry.....	21.9	102	37	4.3	34	3 C.W.	
				VC-15.....	28.5	103	37	1.6	35	3 C.W.	
				VC-30.....	30.3	102	41	5.8	37	2 C.W.	

Badly damaged by shattering.

G. ARMAND SOYKA, SPY HILL

3A.....	7	9	B	Ajax.....	48.8	—	—	—	36	2 C.W.	
				Beacon.....	32.0	—	—	—	32	2 Feed	
				Exeter.....	77.2	—	—	—	34	3 C.W.	
				Garry.....	30.4	—	—	—	30	2 Feed	
				VC-15.....	58.3	—	—	—	33	2 Feed	
				VC-30.....	72.9	—	—	—	35	3 C.W.	

Necessary difference—15.9 bushels.

Wheat Pool District 7—Continued

Cereal Variety Zone	Dist.	Sub- Dist.	Test design- nation	Varieties	Yield bus. per acre	Days seed- ing to ripen- ing	Plant height in inches	Straw strength	Pounds per meas- ured bushel	Com- mer- cial grades	Grading remarks
LEROY WENDELL, NEUDORF											
3C(E)	7	11	C	Ajax.....	89.9	93	38	9.0	32	2 Feed	
				Beacon.....	81.6	96	38	9.6	34	1 Feed	W.
				Exeter.....	80.5	99	40	10.0	31	2 Feed	
				Garry.....	64.2	97	39	10.0	32	2 Feed	
				VC-15.....	73.6	95	40	9.6	31	2 Feed	
				VC-30.....	84.5	95	41	9.0	34	1 Feed	W.
Necessary difference—10.4 bushels.											

WHEAT POOL DISTRICT 8

GEORGE C. SCHAPPERT, SALTCOATS											
3B(E)	8	1	B	Ajax.....	58.8	91	40	9.3	35	3 C.W.	G.
				Beacon.....	75.6	92	38	10.0	35	3 C.W.	G.
				Exeter.....	93.7	92	37	8.6	36	3 C.W.	G.
				Garry.....	59.8	93	40	10.0	28	2 Feed	
				VC-15.....	85.7	93	36	9.0	36	3 C.W.	G.
				VC-30.....	88.6	92	42	9.0	36	3 C.W.	G.
Necessary difference—12.4 bushels.											

JAMES J. ROONEY, SALTCOATS											
3B(E)	8	2	B	Ajax.....	17.9	—	—	—	33	2 Feed	
				Beacon.....	19.5	—	—	—	33	2 Feed	
				Exeter.....	39.5	—	—	—	36	3 C.W.	G.
				Garry.....	25.0	—	—	—	33	2 Feed	
				VC-15.....	23.5	—	—	—	36	3 C.W.	G.
				VC-30.....	23.5	—	—	—	34	1 Feed	G.
Necessary difference—6.0 bushels.											

GEORGE E. LAZURKO, WILLOWBROOK											
3C(E)	8	4	B	Ajax.....	115.3	86	32	9.7	36	3 C.W.	W.
				Beacon.....	108.3	86	32	9.3	35	1 Feed	W.
				Exeter.....	125.9	90	30	7.3	35	1 Feed	W.
				Garry.....	99.4	86	32	9.0	34	1 Feed	W.
				VC-15.....	104.8	90	30	8.7	35	1 Feed	W.
				VC-30.....	117.8	86	32	8.7	35	1 Feed	W.
No significant grain yield difference between varieties.											

WALTER H. TOMILIN, VEREGIN											
3B(E)	8	5	B	Ajax.....	64.9	106	35	9.6	34	3 C.W.	
				Beacon.....	75.4	104	36	8.3	35	3 C.W.	
				Exeter.....	98.3	109	34	6.6	35	3 C.W.	
				Garry.....	62.0	109	37	9.6	23	3 Feed	
				VC-15.....	85.7	104	32	7.6	36	2 C.W.	
				VC-30.....	93.0	105	35	9.0	35	3 C.W.	
Necessary difference—10.1 bushels.											

ALVIN E. SJOLIE, STURGIS											
3B(E)	8	8	B	Ajax.....	47.5	80	34	8.6	* 30	2 Feed	
				Beacon.....	42.4	80	36	9.3	34	3 C.W.	
				Exeter.....	41.2	94	32	8.6	35	3 C.W.	
				Garry.....	36.9	80	37	10.0	29	2 Feed	
				VC-15.....	54.0	93	34	9.6	35	3 C.W.	
				VC-30.....	65.4	90	35	9.3	34	3 C.W.	
Damaged by mice.											

ERNEST W. UNICK, HYAS											
3B(E)	8	9	A	Ajax.....	89.6	85	39	10.0	36	3 C.W.	G.
				Beacon.....	75.6	87	37	9.3	35	3 C.W.	
				Exeter.....	104.7	91	38	8.6	38	3 C.W.	G.
				Garry.....	76.0	87	38	10.0	37	3 C.W.	G.
				VC-15.....	88.7	90	37	9.0	38	3 C.W.	G.
				VC-30.....	96.0	89	41	9.0	38	3 C.W.	G.
Necessary difference—11.0 bushels.											

BORIS J. STRILCHUK, ARRAN											
4A.....	8	10	B	Ajax.....	68.0	91	34	6.6	37	3 C.W.	W.
				Beacon.....	61.2	93	33	8.0	36	3 C.W.	G.
				Exeter.....	86.7	98	35	3.3	35	3 C.W.	
				Garry.....	54.0	95	35	8.0	33	2 Feed	
				VC-15.....	60.4	96	31	7.3	37	3 C.W.	W.
				VC-30.....	61.4	95	35	7.6	37	3 C.W.	G.
Necessary difference—10.5 bushels.											

Tests discarded on account of damage by drought, pests, hail or other causes.

8 7 C Neil M. Dean, Rama.

WHEAT POOL DISTRICT 9

Cereal Variety	Zone	Dist.	Sub-Dist.	Test designation	Varieties	Yield bus. per acre	Days seed- ing to ripen- ing	Plant height in inches	Straw strength	Pounds per measured bushel	Com- mercial grades	Grading remarks
JOE HILLIAR, ITUNA												
3C(W)	9	1	B		Ajax.....	35.0	90	28	9.0	34	1 Feed	W.
					Beacon.....	46.2	92	24	9.0	31	2 Feed	
					Exeter.....	50.4	92	25	9.0	30	2 Feed	
					Garry.....	39.5	94	20	9.0	29	2 Feed	
					VC-15.....	61.6	93	23	9.0	34	1 Feed	G., W.
					VC-30.....	59.3	91	26	9.0	34	1 Feed	G., W.

No significant grain yield difference between varieties.

LAWRENCE L. SCHEUER, SOUTHEY												
3C(W)	9	2	B		Ajax.....	50.8	82	29	—	36	2 C.W.	
					Beacon.....	37.5	82	30	—	36	3 C.W.	G.
					Exeter.....	39.1	86	26	—	33	2 Feed	
					Garry.....	26.6	86	28	—	32	2 Feed	
					VC-15.....	43.3	86	28	—	36	3 C.W.	G.
					VC-30.....	38.6	86	29	—	35	3 C.W.	

Necessary difference—10.7 bushels.

LOUIS GARTNER, MARKINCH												
3C(W)	9	2	C		Ajax.....	67.0	87	35	9.0	33	2 Feed	
					Beacon.....	60.2	88	34	9.3	33	2 Feed	
					Exeter.....	58.0	93	33	9.6	32	2 Feed	
					Garry.....	31.6	95	35	10.0	26	3 Feed	
					VC-15.....	56.9	91	30	8.0	32	2 Feed	
					VC-30.....	55.2	89	35	10.0	32	2 Feed	

Necessary difference—10.3 bushels.

KENNETH J. YANO, LEROSS												
3C(W)	9	3	B		Ajax.....	18.3	—	—	—	27	3 Feed	
					Beacon.....	18.7	—	—	—	26	3 Feed	
					Exeter.....	36.3	—	—	—	35	1 Feed	G.
					Garry.....	19.8	—	—	—	31	2 Feed	
					VC-15.....	23.3	—	—	—	34	1 Feed	G.
					VC-30.....	27.9	—	—	—	31	2 Feed	

Damaged by livestock.

N. DOUGLASS MacDOUGALL, CRAVEN												
3C(W)	9	4	B		Ajax.....	18.5	90	20	8.6	26	3 Feed	
					Beacon.....	8.8	92	17	10.0	20	3 Feed	
					Exeter.....	8.8	100	16	9.3	34	3 C.W.	
					Garry.....	10.4	91	19	9.3	23	3 Feed	
					VC-15.....	11.7	91	15	9.6	23	3 Feed	
					VC-30.....	10.4	90	15	8.6	23	3 Feed	

No significant grain yield difference between varieties.

GEORGE H. HERBER, DUVAL												
3C(W)	9	5	C		Ajax.....	43.0	—	30	9.0	34	3 C.W.	
					Beacon.....	37.5	—	29	8.6	34	3 C.W.	
					Exeter.....	38.7	—	31	8.3	36	2 C.W.	
					Garry.....	29.9	—	30	8.6	34	3 C.W.	
					VC-15.....	45.3	—	29	9.0	34	3 C.W.	
					VC-30.....	39.4	—	30	9.3	35	3 C.W.	

Necessary difference—4.8 bushels.

WHEAT POOL DISTRICT 12

RICHARD W. RYAN, FREEMONT												
3E.....	12	8	B		Ajax.....	35.9	75	33	9.0	32	2 Feed	
					Beacon.....	44.2	82	33	9.0	35	3 C.W.	St.
					Exeter.....	45.9	86	33	9.0	34	3 C.W.	
					Garry.....	41.7	82	33	9.0	33	2 Feed	
					VC-15.....	48.3	82	33	9.0	36	2 C.W.	
					VC-30.....	50.8	82	33	9.0	35	3 C.W.	St.

Necessary difference—6.5 bushels.

Tests discarded on account of damage by drought, pests, hail or other causes.

12 10 B George W. Coats, Ibstone.

WHEAT POOL DISTRICT 13

HUBERT SCHWARK, CUDWORTH												
3C(W)	13	9	B		Ajax.....	—	87	12	5.0	—	—	
					Beacon.....	—	87	12	5.0	—	—	
					Exeter.....	—	87	12	5.0	—	—	
					Garry.....	—	87	12	5.0	—	—	
					VC-15.....	—	87	12	5.0	—	—	
					VC-30.....	—	87	12	5.0	—	—	

Yields not available.

Wheat Pool District 13—Continued

Cereal Variety Zone	Dist.	Sub-Dist.	Test designation	Varieties	Yield bus. per acre	Days seed- ing to ripen- ing	Plant height in inches	Straw strength	Pounds per measured bushel	Com- mercial grades	Grading remarks
JOHN B. BALON, REYNAUD											
4A.....	13	10	C	Ajax.....	30.0	89	21	9.0	35	3 C.W.	G.
				Beacon.....	31.2	89	21	8.3	35	3 C.W.	G.
				Exeter.....	43.1	91	23	8.6	34	3 C.W.	
				Garry.....	38.6	96	25	9.3	33	2 Feed	
				VC-15.....	37.7	91	22	9.0	37	3 C.W.	G.
				VC-30.....	31.7	91	22	8.6	36	3 C.W.	G.

No significant grain yield difference between varieties.

RALPH F. DOYSCHER, LAKE LENORE											
3B(W)	13	11	B	Ajax.....	24.2	73	18	10.0	33	2 Feed	
				Beacon.....	25.1	73	18	10.0	34	3 C.W.	
				Exeter.....	22.3	81	18	10.0	33	2 Feed	
				Garry.....	19.1	81	18	10.0	29	2 Feed	
				VC-15.....	27.5	81	18	10.0	35	3 C.W.	
				VC-30.....	26.9	81	18	10.0	35	3 C.W.	

No significant grain yield difference between varieties.

Tests discarded on account of damage by drought, pests, hail or other causes.

13 1 A Joseph H. A. Earis, Jr., Bay Trail.

WHEAT POOL DISTRICT 14

WILLIAM GIBB, LINTLAW											
3B(W)	14	1	B	Ajax.....	32.7	—	—	—	36	1 Feed	G.
				Beacon.....	31.4	—	—	—	37	3 C.W.	S.G.
				Exeter.....	28.5	—	—	—	36	1 Feed	G.
				Garry.....	27.8	—	—	—	36	1 Feed	G.
				VC-15.....	32.4	—	—	—	36	1 Feed	G.
				VC-30.....	32.5	—	—	—	37	1 Feed	G.

No significant grain yield difference between varieties.

GUNTHER W. HILBIG, KUROKI											
3C(W)	14	1	C	Ajax.....	62.8	—	35	8.6	38	3 C.W.	M.
				Beacon.....	52.4	—	32	8.6	40	3 C.W.	M.
				Exeter.....	49.5	—	34	8.6	40	3 C.W.	M.
				Garry.....	61.8	—	37	9.6	40	3 C.W.	M.
				VC-15.....	63.4	—	34	8.3	39	3 C.W.	M.
				VC-30.....	71.7	—	36	9.0	38	3 C.W.	M.

Necessary difference—11.0 bushels.

CONRAD I. MICKELSON, DAHLTON											
4A.....	14	4	B	Ajax.....	37.5	90	24	10.0	35	3 C.W.	
				Beacon.....	32.7	93	22	10.0	35	3 C.W.	
				Exeter.....	47.1	93	22	10.0	40	1 C.W.	
				Garry.....	27.3	93	23	10.0	37	2 C.W.	
				VC-15.....	46.9	93	23	10.0	39	1 C.W.	
				VC-30.....	44.2	91	26	10.0	38	1 C.W.	

Necessary difference—5.2 bushels.

BETTY C. EVANS, LIGHTWOODS											
4A.....	14	4	C	Ajax.....	24.1	82	17	9.3	34	1 Feed	St., G.
				Beacon.....	20.3	83	18	9.3	35	1 Feed	St., G.
				Exeter.....	25.0	81	20	9.3	35	1 Feed	St., G.
				Garry.....	21.9	84	18	9.6	33	2 Feed	
				VC-15.....	28.3	83	17	10.0	36	3 C.W.	St., S.H.
				VC-30.....	26.0	82	21	9.6	35	3 C.W.	

Necessary difference—3.0 bushels.

MERLE M. TURNQUIST, WALLWORT											
4A.....	14	4	D	Ajax.....	50.0	82	27	9.6	38	3 C.W.	G.
				Beacon.....	49.7	84	25	9.3	38	3 C.W.	G.
				Exeter.....	58.9	91	24	9.0	38	3 C.W.	G.
				Garry.....	49.1	86	27	9.3	38	3 C.W.	G.
				VC-15.....	56.6	93	25	9.0	38	3 C.W.	G.
				VC-30.....	59.3	91	28	9.6	38	3 C.W.	G.

No significant grain yield difference between varieties.

FLOYD R. THOMPSON, PERIGORD											
3B(W)	14	5	B	Ajax.....	—	82	32	9.7	—	—	
				Beacon.....	—	87	28	9.0	—	—	
				Exeter.....	—	92	27	10.0	—	—	
				Garry.....	—	86	28	9.7	—	—	
				VC-15.....	—	85	28	8.7	—	—	
				VC-30.....	—	86	29	9.0	—	—	

No samples received.

Wheat Pool District 14—Continued

Cereal Variety	Zone	Dist.	Sub- Dist.	Test desig- nation	Varieties	Yield bus. per acre	Days seed- ing to ripen- ing	Plant height in inches	Straw strength	Pounds per meas- ured bushel	Com- mercial grades	Grading remarks
ALLAN A. MORRISON, ETHELTON												
3D	14	8	B	Ajax.....	14.8	—	8	8.3	31	2 Feed		
				Beacon.....	15.6	—	8	7.0	30	2 Feed		
				Exeter.....	16.2	—	8	8.0	30	2 Feed		
				Garry.....	18.9	—	10	9.0	32	2 Feed		
				VC-15.....	14.9	—	7	7.0	33	2 Feed		
				VC-30.....	18.0	—	9	8.0	33	2 Feed		
No significant grain yield difference between varieties.												

MARGUERITE P. STRAD, JORDAN RIVER												
3F.....	14	10	C	Ajax.....	94.7	87	31	—	39	2 C.W.	G.	
				Beacon.....	85.7	84	34	—	38	2 C.W.	G.	
				Exeter.....	107.7	86	35	—	37	3 C.W.	G.	
				Garry.....	86.9	86	36	—	36	3 C.W.	G.	
				VC-15.....	102.4	86	32	—	38	2 C.W.	G.	
				VC-30.....	101.7	84	32	—	38	2 C.W.	G.	
Necessary difference—6.8 bushels.												

ROY F. HENDRICKS, AYLSHAM												
3F.....	14	11	A	Ajax.....	82.4	94	32	9.0	34	3 C.W.	G.	
				Beacon.....	71.1	91	33	8.3	34	3 C.W.	G.	
				Exeter.....	97.9	90	33	9.0	35	3 C.W.	G.	
				Garry.....	87.6	98	33	9.0	34	3 C.W.	G.	
				VC-15.....	90.2	95	35	9.0	34	3 C.W.	G.	
				VC-30.....	88.8	96	34	9.0	36	3 C.W.	G.	
No significant grain yield difference between varieties.												

Tests discarded on account of damage by drought, pests, hail, or other causes.

14	3	B	Robert Clark, Silver Park.
14	5	C	Morrison S. Morley, Kinloch.
14	6	B	Allen F. Layfield, Carragana.
14	7	B	Lyle Fettes, Tisdale.

WHEAT POOL DISTRICT 15

LEON J. KLASSEN, LAIRD												
3E.....	15	4	C	Ajax.....	12.6	—	—	—	32	2 Feed		
				Beacon.....	13.5	—	—	—	35	3 C.W.		
				Exeter.....	11.5	—	—	—	36	3 C.W.	G.	
				Garry.....	7.3	—	—	—	29	2 Feed		
				VC-15.....	8.8	—	—	—	33	2 Feed		
				VC-30.....	12.1	—	—	—	34	1 Feed	G.	
Necessary difference—2.1 bushels.												

JOHN O. DAVIES, KILWINNING												
3E.....	15	5	B	Ajax.....	35.6	85	26	9.0	32	2 Feed		
				Beacon.....	24.2	89	24	9.0	31	2 Feed		
				Exeter.....	17.0	91	21	9.0	27	3 Feed		
				Garry.....	13.7	90	21	10.0	19	3 Feed		
				VC-15.....	33.6	88	22	9.0	33	2 Feed		
				VC-30.....	30.9	87	27	10.0	32	2 Feed		
Necessary difference—4.6 bushels.												

J. MAURICE CYR, DEBDEN												
4B	15	7	C	Ajax.....	52.2	88	34	10.0	36	2 C.W.		
				Beacon.....	49.1	89	32	10.0	37	3 C.W.	G.	
				Exeter.....	55.0	91	34	9.3	36	3 C.W.	G.	
				Garry.....	47.6	92	34	10.0	33	2 Feed		
				VC-15.....	50.7	96	31	10.0	37	2 C.W.		
				VC-30.....	53.6	89	34	10.0	36	2 C.W.		
No significant grain yield difference between varieties.												

WILLETTTE O. LUEBKE, WILD ROSE												
3E.....	15	8	B	Ajax.....	31.2	84	21	9.8	33	2 Feed		
				Beacon.....	23.3	93	19	9.6	30	2 Feed		
				Exeter.....	21.0	93	18	9.8	28	2 Feed		
				Garry.....	16.7	100	19	10.0	16	3 Feed		
				VC-15.....	24.8	98	17	9.8	29	2 Feed		
				VC-30.....	28.7	93	20	10.0	32	2 Feed		
Necessary difference—2.9 bushels.												

Wheat Pool District 15—Continued

Cereal Variety Zone	Sub- Dist.	Test design- nation	Varieties	Yield bus. per acre	Days seed- ing to ripen- ing	Plant height in inches	Straw strength	Pounds per meas- ured bushel	Com- mercial grades	Grading remarks
ANNIE SENG, MEATH PARK										
3E.....	15	10	D	Ajax.....	27.3	80	21	9.3	32	2 Feed
				Beacon.....	28.8	80	20	9.3	33	2 Feed
				Exeter.....	26.8	80	20	10.0	31	2 Feed
				Garry.....	20.9	83	22	9.6	29	2 Feed
				VC-15.....	27.4	82	18	10.0	32	2 Feed
				VC-30.....	22.7	82	20	9.6	31	2 Feed
Necessary difference—4.1 bushels.										

Tests discarded on account of damage by drought, pests, hail or other causes.

15	9	B	Kenneth A. Kennedy, Alingly.
15	10	E	James Wytosky, Strong Pine.
15	11	C	Wilbur A. Scott, Garrick.

WHEAT POOL DISTRICT 16

THOMAS K. SIMMONDS, SPEERS										
3E.....	16	2	B	Ajax.....	6.4	91	15	8.0	28	2 Feed
				Beacon.....	5.2	92	16	9.0	27	3 Feed
				Exeter.....	6.0	92	14	8.6	27	3 Feed
				Garry.....	4.1	93	17	9.0	21	3 Feed
				VC-15.....	4.9	92	15	9.0	30	2 Feed
				VC-30.....	6.4	92	16	8.6	31	2 Feed
No significant grain yield difference between varieties.										

HARRY W. KUFFERT, RABBIT LAKE										
4B.....	16	3	B	Ajax.....	40.6	85	22	—	35	3 C.W. W.
				Beacon.....	36.3	90	21	—	36	3 C.W. W.
				Exeter.....	44.3	88	22	—	35	3 C.W. W.
				Garry.....	39.4	91	24	—	34	1 Feed W.
				VC-15.....	39.5	92	20	—	35	3 C.W. W.
				VC-30.....	42.8	86	23	—	35	3 C.W. W.
No significant grain yield difference between varieties.										

GEORGE KOTUN, IFFLEY										
3E.....	16	3	C	Ajax.....	13.7	79	13	9.0	30	2 Feed
				Beacon.....	12.8	80	12	9.0	29	2 Feed
				Exeter.....	9.9	80	11	8.6	26	3 Feed
				Garry.....	10.9	80	12	9.0	27	3 Feed
				VC-15.....	9.7	80	12	9.0	29	2 Feed
				VC-30.....	13.9	80	12	9.0	32	2 Feed
No significant grain yield difference between varieties.										

FREDERICK M. GANSAUGE, PRINCE										
3E.....	16	4	B	Ajax.....	22.1	83	33	8.3	32	2 Feed
				Beacon.....	14.9	85	34	9.6	32	2 Feed
				Exeter.....	23.9	84	32	9.0	33	2 Feed
				Garry.....	11.5	85	34	9.6	24	3 Feed
				VC-15.....	26.0	85	31	9.3	32	2 Feed
				VC-30.....	24.0	84	33	8.0	33	2 Feed
Necessary difference—4.8 bushels.										

KENNETH W. WESSON, MAIDSTONE										
3E.....	16	5	C	Ajax.....	19.2	82	18	9.6	34	1 Feed
				Beacon.....	20.2	83	18	10.0	37	2 C.W.
				Exeter.....	21.2	82	19	9.6	35	3 C.W.
				Garry.....	21.2	83	19	10.0	36	2 C.W.
				VC-15.....	22.8	83	18	10.0	37	2 C.W.
				VC-30.....	24.2	81	19	10.0	36	2 C.W.
Necessary difference—2.4 bushels.										

BERNARD W. STARLING, CATER										
4B.....	16	9	B	Ajax.....	33.8	106	—	—	36	3 C.W. G.
				Beacon.....	26.6	106	—	—	38	3 C.W. W.
				Exeter.....	25.0	109	—	—	36	3 C.W. G.
				Garry.....	28.6	108	—	—	35	3 C.W. W.
				VC-15.....	45.2	109	—	—	37	3 C.W.
				VC-30.....	36.1	107	—	—	35	3 C.W.
Necessary difference—4.1 bushels.										

Wheat Pool District 16—Continued

Cereal Variety Zone	Dist.	Sub- Dist.	Test desig- nation	Varieties	Yield bus. per acre	Days seed- ing to ripening	Plant height in inches	Straw strength	Lbs. per meas- ured bushel	Com- mercial grades	Grading remarks
WALTER ILNESKY, RANGER											
4B.....	16	10	D	Ajax.....	64.0	87	30	9.0	34	3 C.W.	
				Beacon.....	62.9	87	30	9.0	37	2 C.W.	
				Exeter.....	57.4	91	28	9.0	36	2 C.W.	
				Garry.....	59.6	87	32	9.0	35	3 C.W.	
				VC-15.....	61.0	91	30	9.0	34	3 C.W.	
				VC-30.....	67.8	87	30	9.0	34	3 C.W.	

No significant grain yield difference between varieties.

C. WILBURT PETHICK, RAPID VIEW											
4B.....	16	11	C	Ajax.....	70.0	—	—	10.0	37	2 C.W.	
				Beacon.....	61.8	—	—	10.0	38	2 C.W.	W.
				Exeter.....	92.6	—	—	10.0	40	2 C.W.	W.
				Garry.....	44.9	—	—	10.0	35	3 C.W.	
				VC-15.....	64.6	—	—	10.0	39	2 C.W.	W.
				VC-30.....	88.4	—	—	10.0	39	2 C.W.	W.

Necessary difference—15.9 bushels.

Tests discarded on account of damage by drought, pests, hail or other causes.

16	1	C	Walter G. Brookman, Jr., Radisson.
16	5	D	David W. Huard, Waseca.
16	6	C	Raymond R. Richardson, Lashburn.
16	10	E	Sidney J. Harley, Mildred.
16	10	F	Charles A. Comerford, Mullingar.

BARLEY TESTS

DESCRIPTION OF VARIETIES

Plush is a six-rowed, smooth awned feed variety originated at the Brandon Experimental Station from the cross Lion X Bearer. It is susceptible to rusts and smuts. This variety is eligible for the feed grades.

Gem is a six-rowed, semi-smooth awned, early maturing variety originated at the Idaho Experiment Station, from the cross Atlas X Vaughn. This variety is eligible for the feed grades.

Titan is a six-rowed, smooth awned feed variety originated at the University of Alberta, from the cross Trebi X Glabron. It is susceptible to rusts but is resistant to smuts. This variety is eligible for the feed grades.

Tregal is a six-rowed, smooth awned feed variety originated at the North Dakota Experimental Station from the cross Trebi X Regal. It is susceptible to rusts and smuts. This variety is eligible for the feed grades.

Vantage is a new six-rowed, smooth awned feed variety originated at the Brandon Experimental Station from the cross (Newal X Peatland) X Plush. It is resistant to stem rust but is susceptible to smut. This variety has recently been licensed and is eligible for the feed grades.

Velvon is a new six-rowed, smooth awned feed variety originated at the Utah Agricultural Experiment Station from the cross Colorado 3063 X Trebi. Colorado 3063 is of hybrid origin, having been developed from the cross Coast X Lion. Velvon is moderately resistant to smuts but susceptible to rusts. This variety is eligible for the feed grades.

ANALYSIS OF DATA

Barley tests were conducted in the open prairie region comprised of cereal variety Zones 1A to 2F inclusive. For purposes of analyses the barley area was divided into the following four sections on the basis of general soil type, precipitation and test yields. (See map page 54).

Area A.—Includes cereal variety Zone 1B, and the central and western regions of Zone 1A.

Area B.—Includes the eastern and north-western regions of cereal variety Zone 1A.

Area C.—Includes cereal variety Zones 2A, 2E, and the southern region of Zone 2B. Only one test proved satisfactory in Zone 2F and it was included with area C for analysis.

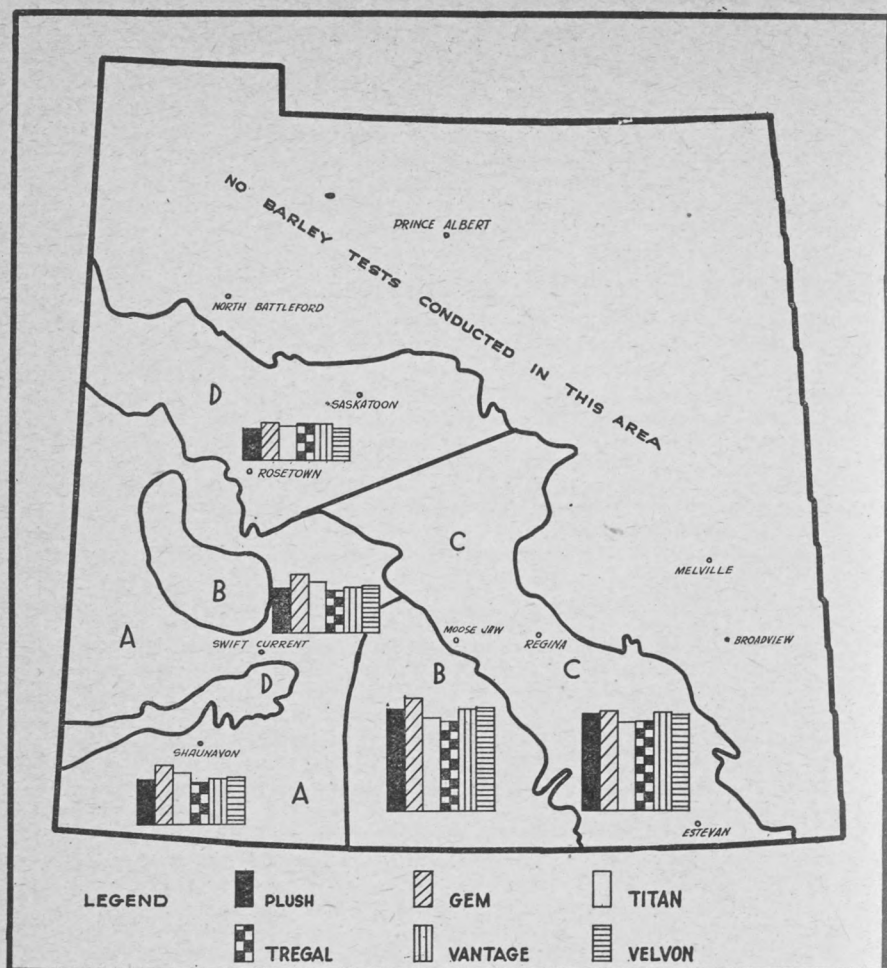
Area D.—Includes cereal variety Zones 2C, 2D and the northern region of cereal variety Zone 2B.

GRAIN YIELD

Table No. 36. An average of all tests shows that **Gem** produced the highest yield. It was followed by **Vantage**, **Velvon**, **Plush**, **Titan** and **Tregal** in that order. The superior yielding ability of **Gem** is demonstrated by the fact that it excelled in every area. Considered on the basis of areas, the yields of the other varieties were somewhat inconsistent. **Vantage** ranked second in area C, third in areas B and D and fourth in Area A. **Velvon** placed second in area B, third in area A, fourth in area C and fifth in area D. On an average basis, **Plush** followed **Velvon** very closely. **Plush** compared most favorably with the other varieties in areas B and C, where general moisture conditions were relatively good. **Titan**, on the other hand, gave its best comparative performance in areas A and D where conditions of growth were least favorable. **Tregal** was somewhat low in yield in all areas except D where it placed second.

TABLE NO. 36.—AVERAGE YIELDS IN BUSHELS PER ACRE SUMMARIZED BY AREAS

Area	No. of Satisfactory Tests	Plush	Gem	Titan	Tregal	Vantage	Velvon	Necessary Difference in Bushels
A.....	11	18.7	24.8	21.5	17.6	19.1	19.8	2.8
B.....	13	42.8	47.4	39.0	37.3	42.9	43.3	3.3
C.....	16	40.7	41.9	37.2	37.6	41.2	40.6	2.5
D.....	9	13.2	16.0	14.6	15.6	15.5	13.6	2.0



MAP SHOWING AREAS A, B, C, AND D, IN WHICH THE RESULTS OF BARLEY TESTS WERE TABULATED. THE HISTOGRAMS ILLUSTRATE FOR EACH AREA THE COMPARATIVE YIELDS OF THE VARIETIES.

DAYS FROM SEEDING TO RIPENING

The number of days required for each variety to ripen is given in the area tables. **Gem** showed considerable superiority, ripening first in every area. **Titan** was second to mature in three areas and placed third in one region. **Vantage** ranked third on the average although in areas A and C it ripened somewhat late. **Plush**, **Tregal** and **Velvon** placed fourth, fifth and sixth respectively but only slight differences were noted in the maturity periods of these varieties.

STRAW STRENGTH

Table No. 37. Straw strength was reported on the basis 10-0. If all plants stood erect the figure 10 was used. If the plants leaned, a lower figure was used depending on the degree of weakness shown. Considerable variation was evident in the relative performances of the varieties. On an average basis, however, **Gem** proved slightly superior, followed by **Vantage**, **Plush**, **Velvon**, **Titan** and **Tregal** in that order.

**TABLE NO. 37.—AVERAGE STRAW STRENGTH OF PLANTS ON THE BASIS 10 (STRONG)
0 (WEAK), SUMMARIZED BY AREAS**

Area	Plush	Gem	Titan	Tregal	Vantage	Velvon
A.....	8.7	9.4	8.5	8.6	8.4	8.7
B.....	8.9	8.6	7.9	7.8	8.7	8.0
C.....	8.2	8.7	8.9	8.8	8.6	9.3
D.....	8.7	8.9	8.7	8.9	9.1	8.7

NECK STRENGTH

Table No. 38. Although it ranked fourth in one area, **Velvon** proved superior in neck strength when all tests were averaged together. **Velvon** was followed by **Vantage**, **Gem**, **Titan**, **Plush** and **Tregal** in that order.

**TABLE NO. 38.—AVERAGE NECK STRENGTH OF PLANTS ON BASIS 1 (STRONG)
2 (MEDIUM), 3 (WEAK)—SUMMARIZED BY AREAS**

Area	Plush	Gem	Titan	Tregal	Vantage	Velvon
A.....	1.7	1.1	1.4	1.5	1.5	1.4
B.....	1.2	1.8	1.4	1.7	1.2	1.5
C.....	1.8	1.8	1.6	1.8	1.6	1.2
D.....	1.9	1.6	2.0	1.8	1.8	1.3

WEIGHT PER MEASURED BUSHEL

Table No. 39. **Titan** excelled in this characteristic, outweighing all other varieties in every area. **Tregal** was second in bushel weight. On an average basis **Vantage** and **Velvon** were practically equal and **Plush** ranked fifth. **Gem** proved inferior, exhibiting the lowest bushel weight in three of the four areas.

TABLE NO. 39.—AVERAGE WEIGHT PER MEASURED BUSHEL SUMMARIZED BY AREAS

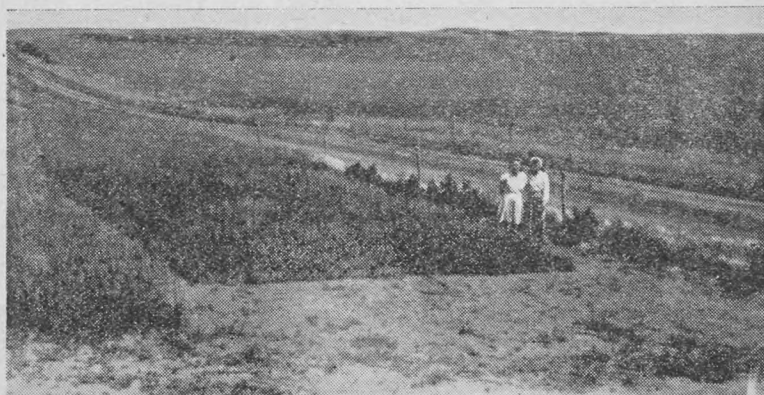
Area	Plush	Gem	Titan	Tregal	Vantage	Velvon
A.....	41.7	40.5	44.3	42.5	40.7	41.3
B.....	45.0	43.9	47.4	45.9	45.3	44.3
C.....	44.6	44.5	47.6	45.8	45.3	45.2
D.....	41.5	41.7	45.1	43.9	41.8	43.1

COMMERCIAL GRADES

Table No. 40. **Titan** graded somewhat better than the other varieties. **Tregal** ranked second. **Vantage** and **Velvon** followed with little difference being shown between these two varieties. **Plush** ranked fifth and **Gem** proved inferior to all other varieties in commercial grades.

TABLE NO. 40.—COMMERCIAL GRADES IN PERCENTAGE

	Plush	Gem	Titan	Tregal	Vantage	Velvon
1 Fd.....	24.1	19.0	67.2	44.8	29.3	24.1
2 Fd.....	34.5	37.9	25.9	31.0	36.2	43.1
3 Fd.....	41.4	43.1	6.9	24.2	34.5	32.8



THE BARLEY TEST OF ARLISS OLSON, LAKE ALMA

SUMMARIZATION ACCORDING TO AREAS

TABLE NO. 41.—SUMMARIZED RESULTS FOR AREA "A"

(11 satisfactory tests)

	Plush	Gem	Titan	Tregal	Vantage	Velvon
Yield in bushels per acre.....	18.7	24.8	21.5	17.6	19.1	19.8
Days from seeding to ripening.....	79.5	78.0	79.0	79.7	79.8	79.8
Height of Plants in inches.....	25.1	25.3	23.8	24.0	24.0	24.1
Straw strength.....	8.7	9.4	8.5	8.6	8.4	8.7
Neck strength.....	1.7	1.1	1.4	1.5	1.5	1.4
Bushel weight in pounds.....	41.7	40.5	44.3	42.5	40.7	41.3
Commercial Grades in Percentage:						
1 Fd.....	6.7	—	33.3	26.7	6.7	—
2 Fd.....	40.0	33.3	46.7	26.7	26.7	46.7
3 Fd.....	53.3	66.7	20.0	46.6	66.6	53.3
Necessary difference—2.8 bushels.						

Table No. 41. **Gem** gave an excellent performance in this area, showing superiority in all characteristics except bushel weight and grading ability. **Titan** ranked second in yield and maturity. It outweighed the other varieties by a considerable margin and excelled in commercial grades. **Titan** was satisfactory in other characteristics and is considered one of the best varieties for use in this area. **Velvon** placed third in yield but ripened comparatively late and was slightly low in bushel weight and grades. **Vantage** was fourth in yield. It ripened relatively late, proved slightly weak in straw and produced low bushel weight and inferior grades. **Plush** ranked fifth in yield and showed no particular merit in this area. **Tregal** was outyielded by all other varieties and its general performance was not outstanding.

TABLE NO. 42.—SUMMARIZED RESULTS FOR AREA "B"

(13 satisfactory tests)

	Plush	Gem	Titan	Tregal	Vantage	Velvon
Yield in bushels per acre.....	42.8	47.4	39.0	37.3	42.9	43.3
Days from seeding to ripening.....	78.3	77.2	77.7	79.4	78.1	78.8
Height of plants in inches.....	25.6	23.9	24.6	23.9	24.5	24.1
Straw strength.....	8.9	8.6	7.9	7.8	8.7	8.0
Neck strength.....	1.2	1.8	1.4	1.7	1.2	1.5
Bushel weight in pounds.....	45.0	43.9	47.4	45.9	45.3	44.3
Commercial Grades in Percentage:						
1 Fd.....	42.9	42.9	78.6	57.1	50.0	35.7
2 Fd.....	35.7	28.6	21.4	28.6	35.7	28.6
3 Fd.....	21.4	23.5	—	14.3	14.3	35.7
Necessary difference—3.3 bushels.						

Table No. 42. **Gem** outyielded all other varieties significantly. It ripened early and had comparatively strong straw but proved inferior in neck strength and bushel weight. **Velvon** was second in yield but otherwise showed no outstanding characteristics. **Vantage** and **Plush** were practically equal in yielding ability. Although both varieties were significantly outyielded by **Gem**, the superior performances of **Vantage** and **Plush** in bushel weight, grades and neck strength tend to offset the lower yields. **Titan** excelled in bushel weight and grading ability. It ripened fairly early but was fifth in yield and had slightly weak straw. **Tregal**, again was low in yield. It produced good bushel weight and graded comparatively well but its poor yield, late maturity and relatively weak straw are serious disadvantages.

TABLE NO. 43.—SUMMARIZED RESULTS FOR AREA "C"

(16 satisfactory tests)

	Plush	Gem	Titan	Tregal	Vantage	Velvon
Yield in bushels per acre.....	40.7	41.9	37.2	37.6	41.2	40.6
Days from seeding to ripening.....	81.0	79.9	80.0	81.6	81.7	81.3
Height of plants in inches.....	28.4	27.7	27.0	27.3	28.2	27.8
Straw strength.....	8.2	8.7	8.9	8.8	8.6	9.3
Neck strength.....	1.8	1.8	1.6	1.8	1.6	1.2
Bushel weight in pounds.....	44.6	44.5	47.6	45.8	45.3	45.2
Commercial grades in percentage.....						
1 Fd.....	38.9	22.2	83.3	61.1	50.0	44.4
2 Fd.....	33.3	55.6	16.7	22.2	33.3	44.4
3 Fd.....	27.8	22.2	—	16.7	16.7	11.2
Necessary difference—2.5 bushels.						

Table No. 43. Once again **Gem** was high in yield. It exceeded **Titan** and **Tregal** by differences which were greater than the necessary difference for the zone. **Gem** ripened early and compared favorably with the other varieties in all characteristics except bushel weight and grades. **Vantage** matured slightly late but otherwise proved satisfactory. Compared to **Gem**, **Vantage** was slightly inferior in yield but its advantage in bushel weight and commercial grades is worthy of consideration. **Plush** ranked third in yield and was comparatively inferior in bushel weight, grades and straw strength. **Velvon** showed excellent strength of straw and neck. It practically equalled **Plush** in yield and proved satisfactory in bushel weight and grading ability. **Tregal** ranked fifth in yield. It matured slightly late, and gave only an average performance. **Titan** excelled in bushel weight and grades and practically equalled **Gem** in earliness. Although slightly low in yield, **Titan** exhibited several excellent qualities which tend to offset this disadvantage to a considerable extent.

TABLE NO. 44.—SUMMARIZED RESULTS FOR AREA "D"
(11 satisfactory tests)

	Plush	Gem	Titan	Tregal	Vantage	Velvon
Yield in bushels per acre.....	13.2	16.0	14.6	15.6	15.5	13.6
Days from seeding to ripening.....	88.9	85.6	87.5	88.0	87.0	88.1
Height of plants in inches.....	19.3	19.1	17.9	18.6	19.0	19.0
Straw strength.....	8.7	8.9	8.7	8.9	9.1	8.7
Neck strength.....	1.9	1.6	2.0	1.8	1.8	1.3
Bushel weight in pounds.....	41.5	41.7	45.1	43.9	41.8	43.1
Commercial grades in percentage:						
1 Fd.....	—	9.1	72.7	27.3	—	9.1
2 Fd.....	27.3	27.3	18.2	54.5	54.5	54.5
3 Fd.....	72.7	63.6	9.1	18.2	45.5	36.4
Necessary difference—2.0 bushels.						

Table No. 44. **Gem** was high in yield, significantly outyielding **Velvon** and **Plush**. It ripened somewhat earlier than the other varieties and showed comparatively good strength of straw and neck. In bushel weight and grading ability, however, **Gem** proved inferior to all but the **Plush** variety. **Tregal** ranked second in yield and gave a generally satisfactory performance. **Vantage** practically equalled **Tregal** in yield and exceeded the latter variety in earliness, height and straw strength. **Vantage**, however, showed rather poor bushel weight and commercial grades. **Titan** excelled in bushel weight and commercial grades but proved inferior in neck strength and height and was slightly low in yield. **Velvon** ranked fifth in yield and apart from excellent neck strength, showed no outstanding qualities. **Plush** gave a very poor performance in this area. It was low in yield, bushel weight and grades and ripened later than all other varieties.

TABLE No. 45

Individual Summarized Results of All Tests—Barley

WHEAT POOL DISTRICT 1

Area	Dist.	Sub- Dist.	Test desig- nation	Varieties	Yield bus. per acre	Days seed- ing to ripen- ing	Plant height in inches	Straw strength	Neck strength	Pounds per meas- ured bushel	Com- mercial grades	Grading remarks
ALLAN T. MACFARLANE, GLEN EWEN												
C.....	1	3	B	Plush.....	61.5	—	—	—	—	46	1 Feed	
				Gem.....	48.9	—	—	—	—	44	2 Feed	
				Titan.....	38.4	—	—	—	—	47	1 Feed	
				Tregal.....	45.8	—	—	—	—	48	1 Feed	
				Vantage.....	52.2	—	—	—	—	46	1 Feed	
				Velvon.....	52.9	—	—	—	—	43	2 Feed	

Necessary difference—9.9 bushels.

HERMAN A. E. ULRICH, WOODLEY												
C.....	1	5	B	Plush.....	40.7	—	—	—	—	40	3 Feed	
				Gem.....	46.6	—	—	—	—	40	3 Feed	
				Titan.....	40.2	—	—	—	—	44	2 Feed	
				Tregal.....	42.4	—	—	—	—	41	3 Feed	
				Vantage.....	43.2	—	—	—	—	41	3 Feed	
				Velvon.....	41.9	—	—	—	—	38	3 Feed	

No significant grain yield difference between varieties.

ARNOLD E. OLMSTEAD, MIDALE												
C.....	1	6	A	Plush.....	45.2	—	—	—	—	46	1 Feed	
				Gem.....	34.9	—	—	—	—	45	2 Feed	
				Titan.....	32.5	—	—	—	—	48	1 Feed	
				Tregal.....	35.0	—	—	—	—	47	1 Feed	
				Vantage.....	46.2	—	—	—	—	47	1 Feed	
				Velvon.....	42.5	—	—	—	—	47	1 Feed	

Necessary difference—6.5 bushels.

MARVIN M. BLOOR, BROMHEAD												
C.....	1	7	B	Plush.....	57.4	—	—	—	—	42	3 Feed	
				Gem.....	68.1	—	—	—	—	42	3 Feed	
				Titan.....	64.0	—	—	—	—	46	1 Feed	
				Tregal.....	53.5	—	—	—	—	43	2 Feed	
				Vantage.....	67.5	—	—	—	—	43	2 Feed	
				Velvon.....	58.9	—	—	—	—	46	1 Feed	

No significant grain yield difference between varieties.

J. HOWARD CARINS, GRIFFIN												
C.....	1	8	A	Plush.....	27.0	87	24	—	—	42	3 Feed	
				Gem.....	30.5	90	24	—	—	44	2 Feed	
				Titan.....	31.9	81	24	—	—	49	1 Feed	
				Tregal.....	31.1	88	24	—	—	42	3 Feed	
				Vantage.....	28.4	89	24	—	—	45	2 Feed	
				Velvon.....	24.5	87	24	—	—	45	2 Feed	

No significant grain yield difference between varieties.

WHEAT POOL DISTRICT 2

ARLISS I. OLSON, LAKE ALMA												
C.....	2	1	B	Plush.....	52.8	73	33	7.0	3.0	45	2 Feed	
				Gem.....	58.1	72	32	9.3	2.0	43	2 Feed	
				Titan.....	52.4	72	31	10.0	1.0	47	1 Feed	
				Tregal.....	53.1	73	31	9.0	2.0	46	1 Feed	
				Vantage.....	44.3	73	31	8.0	2.0	44	2 Feed	
				Velvon.....	51.7	73	33	10.0	1.0	44	2 Feed	

No significant grain yield difference between varieties.

KEITH WARREN, OGEMA												
B.....	2	9	A	Plush.....	50.3	—	—	—	—	47	1 Feed	
				Gem.....	39.2	—	—	—	—	48	1 Feed	
				Titan.....	37.2	—	—	—	—	48	1 Feed	
				Tregal.....	32.7	—	—	—	—	46	1 Feed	
				Vantage.....	47.9	—	—	—	—	46	1 Feed	
				Velvon.....	49.4	—	—	—	—	47	1 Feed	

Necessary difference—6.1 bushels.

Wheat Pool District 2—Continued

Area	Dist.	Sub- Dist.	Test design- nation	Varieties	Yield bus. per acre	Days seed- ing to ripen- ing	Plant height in inches	Straw strength	Neck strength	Pounds per meas- ured bushel	Com- mercial grades	Grading remarks
JOHN N. NEAMTU, WHEATSTONE												
B.....	2	9	B	Plush.....	42.3	—	—	—	—	40	3	Feed
				Gem.....	57.5	—	—	—	—	40	3	Feed
				Titan.....	47.4	—	—	—	—	44	2	Feed
				Tregal.....	42.5	—	—	—	—	40	3	Feed
				Vantage.....	41.2	—	—	—	—	39	3	Feed
				Velvon.....	40.7	—	—	—	—	38	3	Feed
Necessary difference—3.1 bushels.												
KENNETH W. LOUCKS, PANGMAN												
C.....	2	10	B	Plush.....	7.4	81	21	—	—	45	2	Feed
				Gem.....	10.7	79	21	—	—	45	2	Feed
				Titan.....	5.5	82	20	—	—	47	1	Feed
				Tregal.....	3.9	83	20	—	—	46	1	Feed
				Vantage.....	10.4	82	21	—	—	46	1	Feed
				Velvon.....	16.7	82	20	—	—	45	2	Feed
Yields unreliable due to damage by livestock.												

WHEAT POOL DISTRICT 3

HAROLD N. WILSON, McCORD												
A.....	3	1	B	Plush.....	16.8	—	—	—	—	38	3	Feed
				Gem.....	19.3	—	—	—	—	41	3	Feed
				Titan.....	22.3	—	—	—	—	45	2	Feed
				Tregal.....	17.2	—	—	—	—	41	3	Feed
				Vantage.....	15.7	—	—	—	—	38	3	Feed
				Velvon.....	16.6	—	—	—	—	43	2	Feed
Necessary difference—2.3 bushels.												
GEORGE W. BRACKENBURY, DIVIDE												
A.....	3	4	B	Plush.....	22.4	82	25	9.0	1.6	44	2	Feed
				Gem.....	22.9	76	25	10.0	1.0	44	2	Feed
				Titan.....	20.7	80	24	8.0	2.0	46	1	Feed
				Tregal.....	20.3	82	25	8.7	1.3	46	1	Feed
				Vantage.....	21.4	82	25	8.7	1.6	43	2	Feed
				Velvon.....	16.6	83	24	9.0	1.6	45	2	Feed
No significant grain yield difference between varieties.												
DONALD E. NEELY, CARNAGH												
D.....	3	6	B	Plush.....	15.3	93	18	8.6	3.0	45	2	Feed
				Gem.....	12.6	88	16	9.6	1.6	45	2	Feed
				Titan.....	14.1	87	15	9.6	2.0	46	1	Feed
				Tregal.....	12.5	91	16	9.6	2.0	47	1	Feed
				Vantage.....	18.2	89	17	8.6	2.0	43	2	Feed
				Velvon.....	16.0	91	18	9.6	1.0	47	1	Feed
Necessary difference—2.4 bushels.												
FRANCIS G. COOKE, EASTEND												
A.....	3	7	B	Plush.....	7.4	—	—	—	—	45	2	Feed
				Gem.....	10.1	—	—	—	—	43	2	Feed
				Titan.....	9.8	—	—	—	—	45	2	Feed
				Tregal.....	8.5	—	—	—	—	44	2	Feed
				Vantage.....	7.8	—	—	—	—	42	3	Feed
				Velvon.....	10.0	—	—	—	—	43	2	Feed
Samples bulked.												
F. ALEX. JAMIESON, SHAUNAVON												
A.....	3	8	B	Plush.....	18.3	91	26	10.0	3.0	44	2	Feed
				Gem.....	22.2	88	23	10.0	1.0	43	2	Feed
				Titan.....	35.0	89	24	10.0	1.0	49	1	Feed
				Tregal.....	14.7	91	23	9.0	2.0	47	1	Feed
				Vantage.....	15.1	92	23	9.0	2.0	45	2	Feed
				Velvon.....	13.1	92	21	10.0	1.0	44	2	Feed
Necessary difference—5.2 bushels.												
DANIEL RUEST, FRENCHVILLE												
A.....	3	9	B	Plush.....	8.0	78	20	7.3	1.6	48	1	Feed
				Gem.....	14.1	78	21	8.6	1.0	43	2	Feed
				Titan.....	9.2	78	18	8.3	1.3	49	1	Feed
				Tregal.....	6.9	78	19	7.0	1.3	47	1	Feed
				Vantage.....	8.2	78	17	6.0	1.0	48	1	Feed
				Velvon.....	12.5	78	21	8.3	1.6	44	2	Feed
Damaged by birds.												

WHEAT POOL DISTRICT 4

Area	Dist.	Sub- Dist.	Test design- nation	Varieties	Yield bus. per acre	Days seed- ing to ripen- ing	Plant height in inches	Straw strength	Neck strength	Pounds per meas- ured bushel	Com- mercial grades	Grading remarks
CLARENCE HONSVALL, TOMPKINS												
A.....	4	1	B	Plush.....	26.4	76	29	8.3	2.0	38	3	Feed
				Gem.....	36.3	76	30	10.0	1.0	39	3	Feed
				Titan.....	30.0	76	27	9.3	1.6	43	2	Feed
				Tregal.....	26.3	77	28	8.0	1.6	39	3	Feed
				Vantage.....	26.7	77	28	8.6	2.6	37	3	Feed
				Velvon.....	30.6	76	29	7.0	1.7	37	3	Feed
Necessary difference—3.1 bushels.												

DOUGLAS J. BORMAN, PIAPOT												
A.....	4	1	C	Plush.....	4.9	—	—	—	—	36	3	Feed
				Gem.....	8.6	—	—	—	—	32	3	Feed
				Titan.....	10.0	—	—	—	—	40	3	Feed
				Tregal.....	8.0	—	—	—	—	39	3	Feed
				Vantage.....	5.9	—	—	—	—	36	3	Feed
				Velvon.....	8.2	—	—	—	—	36	3	Feed
Considerable damage by grasshoppers.												

SHIRLEY A. MOCH, HATTON												
A.....	4	2	C	Plush.....	9.3	—	—	—	—	40	3	Feed
				Gem.....	10.5	—	—	—	—	40	3	Feed
				Titan.....	12.3	—	—	—	—	36	3	Feed
				Tregal.....	9.0	—	—	—	—	37	3	Feed
				Vantage.....	12.6	—	—	—	—	34	3	Feed
				Velvon.....	10.1	—	—	—	—	38	3	Feed
Damaged. Samples bulked.												

ROBERT and ROY WILLIAMS, PENNANT												
B.....	4	5	A	Plush.....	73.3	74	31	—	—	45	2	Feed
				Gem.....	72.5	72	28	—	—	43	2	Feed
				Titan.....	57.1	71	29	—	—	46	1	Feed
				Tregal.....	51.9	74	29	—	—	47	1	Feed
				Vantage.....	77.7	74	30	—	—	44	2	Feed
				Velvon.....	71.2	74	29	—	—	42	3	Feed
No significant grain yield difference between varieties.												

ALBERT UNRATH, GOLDEN PRAIRIE												
A.....	4	6	B	Plush.....	29.3	—	—	—	—	41	3	Feed
				Gem.....	31.5	—	—	—	—	40	3	Feed
				Titan.....	27.8	—	—	—	—	46	1	Feed
				Tregal.....	26.0	—	—	—	—	43	2	Feed
				Vantage.....	27.7	—	—	—	—	42	3	Feed
				Velvon.....	32.2	—	—	—	—	41	3	Feed
No significant grain yield difference between varieties.												

MELVIN MUTSCHLER, FOX VALLEY												
A.....	4	7	B	Plush.....	17.7	82	27	8.0	1.6	40	3	Feed
				Gem.....	27.4	80	27	9.3	1.0	38	3	Feed
				Titan.....	17.1	82	26	5.6	1.3	44	2	Feed
				Tregal.....	20.1	82	24	9.3	1.6	41	3	Feed
				Vantage.....	21.7	82	25	8.6	1.0	41	3	Feed
				Velvon.....	18.0	82	25	9.3	1.0	43	2	Feed
Necessary difference—4.4 bushels.												

CHARLIE BAUER, BURSTALL												
B.....	4	8	B	Plush.....	47.4	—	26	—	1.0	48	1	Feed
				Gem.....	58.0	—	18	—	2.0	46	1	Feed
				Titan.....	40.0	—	23	—	1.0	52	1	Feed
				Tregal.....	33.3	—	18	—	2.0	51	1	Feed
				Vantage.....	41.6	—	24	—	1.0	49	1	Feed
				Velvon.....	52.3	—	24	—	1.0	49	1	Feed
Necessary difference—7.1 bushels.												

WHEAT POOL DISTRICT 5

T. MURRAY PATTERSON, MOSSBANK												
B.....	5	1	A	Plush.....	25.8	—	—	—	—	45	2	Feed
				Gem.....	19.7	—	—	—	—	43	2	Feed
				Titan.....	17.5	—	—	—	—	47	1	Feed
				Tregal.....	31.5	—	—	—	—	45	2	Feed
				Vantage.....	21.2	—	—	—	—	44	2	Feed
				Velvon.....	30.8	—	—	—	—	45	2	Feed
Samples bulked.												

Wheat Pool District 5—Continued

Area	Dist.	Sub- Dist.	Test desig- nation	Varieties	Yield bus. per acre	Days seed- ing to ripen- ing	Plant height in inches	Straw strength	Neck strength	Pounds per meas- ured bushel	Com- mercial grades	Grading remarks
VERNON W. OEHLERKING, GRAVELBOURG												
B.....	5	2	B	Plush.....	48.5	76	22	—	—	42	3 Feed	
				Gem.....	54.1	71	22	—	—	44	2 Feed	
				Titan.....	56.2	71	32	—	—	47	1 Feed	
				Tregal.....	48.8	78	26	—	—	44	2 Feed	
				Vantage.....	45.5	78	22	—	—	43	2 Feed	
				Velvon.....	46.0	72	22	—	—	42	3 Feed	

No significant grain yield difference between varieties.

PETER DYCK, Jr., BLUMENHOF												
D.....	5	3	B	Plush.....	19.0	89	28	8.6	2.3	42	3 Feed	
				Gem.....	20.3	87	29	7.0	2.3	43	2 Feed	
				Titan.....	22.9	88	29	8.3	2.3	47	1 Feed	
				Tregal.....	11.1	88	26	8.6	1.6	44	2 Feed	
				Vantage.....	22.0	88	29	8.6	2.6	43	2 Feed	
				Velvon.....	23.9	88	28	8.6	2.3	44	2 Feed	

Damaged by grasshoppers.

LEONA B. VEER, WALDECK												
A.....	5	4	B	Plush.....	19.9	—	28	7.3	2.0	40	3 Feed	
				Gem.....	26.4	—	30	7.6	1.6	39	3 Feed	
				Titan.....	24.9	—	27	7.0	2.3	44	2 Feed	
				Tregal.....	15.6	—	26	6.6	2.3	40	3 Feed	
				Vantage.....	20.1	—	29	6.3	2.0	40	3 Feed	
				Velvon.....	20.8	—	28	5.6	2.3	40	3 Feed	

No significant grain yield difference between varieties.

E. DENIS GAGNON, CODERRE												
B.....	5	6	B	Plush.....	29.6	77	27	8.3	2.0	47	1 Feed	
				Gem.....	42.4	75	28	9.0	2.0	46	1 Feed	
				Titan.....	31.8	73	27	8.6	1.6	49	1 Feed	
				Tregal.....	31.3	75	28	8.3	2.0	48	1 Feed	
				Vantage.....	34.2	75	27	8.6	1.6	47	1 Feed	
				Velvon.....	31.3	77	27	7.0	2.0	46	1 Feed	

Necessary difference—5.2 bushels.

C. STUART COATES, CARON												
B.....	5	7	A	Plush.....	16.4	74	26	9.0	1.0	41	3 Feed	
				Gem.....	23.3	81	20	7.0	2.0	37	3 Feed	
				Titan.....	16.5	81	20	7.0	2.0	43	2 Feed	
				Tregal.....	16.8	81	20	7.0	2.0	41	3 Feed	
				Vantage.....	19.1	70	24	9.0	1.0	40	3 Feed	
				Velvon.....	17.6	81	20	7.0	2.0	42	3 Feed	

Necessary difference—2.7 bushels.

ROBERT G. MCCARTNEY, TUXFORD												
C.....	5	8	B	Plush.....	41.4	—	36	—	1.0	47	1 Feed	
				Gem.....	38.5	—	36	—	1.0	47	1 Feed	
				Titan.....	39.0	—	31	—	1.0	51	1 Feed	
				Tregal.....	36.2	—	33	—	1.0	48	1 Feed	
				Vantage.....	41.7	—	32	—	1.0	48	1 Feed	
				Velvon.....	43.6	—	29	—	1.0	46	1 Feed	

No significant grain yield difference between varieties.

JOHN A. GOODING, CENTRAL BUTTE												
A.....	5	9	B	Plush.....	16.7	71	24	10.0	1.0	45	2 Feed	
				Gem.....	28.6	71	25	10.0	1.0	43	2 Feed	
				Titan.....	20.8	71	24	10.0	1.0	47	1 Feed	
				Tregal.....	20.2	71	24	10.0	1.0	47	1 Feed	
				Vantage.....	21.3	71	24	10.0	1.0	41	3 Feed	
				Velvon.....	20.5	71	24	10.0	1.0	43	2 Feed	

Necessary difference—3.0 bushels.

JOHN R. SMITH, CALDERBANK												
B.....	5	10	B	Plush.....	44.3	79	30	9.0	1.0	44	2 Feed	
				Gem.....	44.1	79	30	6.0	2.0	42	3 Feed	
				Titan.....	37.0	79	26	4.0	1.0	47	1 Feed	
				Tregal.....	44.7	81	30	3.0	3.0	45	2 Feed	
				Vantage.....	54.3	79	30	9.0	1.0	47	1 Feed	
				Velvon.....	46.9	79	30	6.0	2.0	44	2 Feed	

No significant grain yield difference between varieties.

Tests discarded on account of damage by drought, pests, hail, or other causes.

5 5 B Clarence A. Bocek, Hodgeville.

WHEAT POOL DISTRICT 6

Area	Dist.	Sub-Dist.	Test design	Varieties	Yield bus. per acre	Days seed- ing to ripen- ing	Plant height in inches	Straw strength	Neck strength	Pounds per measured bushel	Com- mercial grades	Grading remarks
CLINTON D. HOUSTON, TYVAN												
C.....	6	1	A	Plush.....	38.6	92	27	9.0	2.6	43	2	Feed
				Gem.....	45.2	90	25	9.0	3.0	44	2	Feed
				Titan.....	38.7	91	26	9.0	2.3	45	2	Feed
				Tregal.....	44.0	91	27	9.0	2.6	45	2	Feed
				Vantage.....	39.6	92	28	9.6	2.0	43	2	Feed
				Velvon.....	44.2	92	27	9.0	1.6	45	2	Feed

No significant grain yield difference between varieties.

FRANK SATTLER, MILESTONE												
C.....	6	3	B	Plush.....	42.7	75	32	8.0	1.0	41	3	Feed
				Gem.....	48.2	73	32	8.3	1.0	43	2	Feed
				Titan.....	45.5	74	31	8.6	1.0	46	1	Feed
				Tregal.....	46.1	76	32	8.6	1.0	44	2	Feed
				Vantage.....	47.8	75	32	8.0	1.0	43	2	Feed
				Velvon.....	44.2	75	32	8.6	1.0	44	2	Feed

No significant grain yield difference between varieties.

JOHN W. FILAZEK, Jr., SPRING VALLEY												
B.....	6	4	B	Plush.....	37.8	73	29	9.0	1.0	49	1	Feed
				Gem.....	43.8	70	27	10.0	1.0	47	1	Feed
				Titan.....	41.4	71	26	9.0	1.0	50	1	Feed
				Tregal.....	38.1	73	25	9.0	1.0	50	1	Feed
				Vantage.....	42.0	73	26	8.0	1.0	50	1	Feed
				Velvon.....	40.9	73	28	10.0	1.0	45	2	Feed

No significant grain yield difference between varieties.

PATRICIA A. HUNT, BILDON												
B.....	6	5	B	Plush.....	44.6	76	23	10.0	1.0	47	1	Feed
				Gem.....	49.2	76	25	9.3	1.7	47	1	Feed
				Titan.....	39.3	76	24	10.0	1.0	50	1	Feed
				Tregal.....	38.6	76	25	10.0	1.0	49	1	Feed
				Vantage.....	41.3	77	24	10.0	1.0	48	1	Feed
				Velvon.....	41.4	76	25	10.0	1.0	47	1	Feed

No significant grain yield difference between varieties.

STANLEY K. HILTS, DRINKWATER												
C.....	6	6	B	Plush.....	48.8	—	—	—	—	48	1	Feed
				Gem.....	43.1	—	—	—	—	48	1	Feed
				Titan.....	39.6	—	—	—	—	49	1	Feed
				Tregal.....	39.6	—	—	—	—	48	1	Feed
				Vantage.....	47.1	—	—	—	—	48	1	Feed
				Velvon.....	45.3	—	—	—	—	48	1	Feed

No significant grain yield difference between varieties.

Tests discarded on account of damage by drought, pests, hail, or other causes.

6	2	B	Ann Biegler, Vibank.
6	10	C	Lou Joorisity, Bethune.

WHEAT POOL DISTRICT 7

CHARLES M. DUTHIE, CREELMAN												
C.....	7	5	B	Plush.....	37.3	—	—	—	—	44	2	Feed
				Gem.....	30.7	—	—	—	—	44	2	Feed
				Titan.....	29.8	—	—	—	—	48	1	Feed
				Tregal.....	29.3	—	—	—	—	47	1	Feed
				Vantage.....	38.1	—	—	—	—	47	1	Feed
				Velvon.....	30.4	—	—	—	—	46	1	Feed

No significant grain yield difference between varieties.

WHEAT POOL DISTRICT 9

DOUGLAS KIRK, NOKOMIS												
C.....	9	6	A	Plush.....	1.7	—	—	—	—	(A)	(E)	3 Feed
				Gem.....	13.1	—	—	—	—	39	3	Feed
				Titan.....	7.4	—	—	—	—	43	2	Feed
				Tregal.....	4.0	—	—	—	—	41	3	Feed
				Vantage.....	6.0	—	—	—	—	38	3	Feed
				Velvon.....	7.2	—	—	—	—	42	3	Feed

Damaged by grasshoppers.

(A)=Insufficient to calculate bushel weight.

(E)=Estimated Grade.

Wheat Pool District 9—Continued

Area	Dist.	Sub-Dist.	Test designation	Varieties	Yield bus. per acre	Days seed-ing to ripen-ing	Plant height in inches	Straw strength	Neck strength	Pounds per measured bushel	Com-mercial grades	Grading remarks
WERNER E. TORWALT, JANSEN												
C.....	9	8	B	Plush.....	31.6	79	27	10.0	1.0	45	2 Feed	
				Gem.....	34.6	78	24	8.3	1.3	46	1 Feed	
				Titan.....	32.2	80	25	9.0	1.6	49	1 Feed	
				Tregal.....	33.5	81	24	9.3	1.6	47	1 Feed	
				Vantage.....	33.4	81	26	9.3	1.0	47	1 Feed	
				Velvon.....	35.0	81	26	9.0	1.0	48	1 Feed	
No significant grain yield difference between varieties.												
Tests discarded on account of damage by drought, pests, hail, or other causes.												
9		7	C	Gavin F. Hamilton, Semans.								

WHEAT POOL DISTRICT 10

GORDON J. MEADEN, BEECHY												
A.....	10	3	A	Plush.....	17.7	77	22	10.0	1.0	39	3 Feed	
				Gem.....	27.3	77	21	10.0	1.0	42	3 Feed	
				Titan.....	23.2	77	20	10.0	1.0	41	3 Feed	
				Tregal.....	23.5	77	23	10.0	1.0	38	3 Feed	
				Vantage.....	21.7	77	21	10.0	1.0	37	3 Feed	
				Velvon.....	22.9	77	21	10.0	1.0	41	3 Feed	
Necessary difference—3.0 bushels.												
GARDINER FACCA, WISETON												
A.....	10	4	B	Plush.....	9.9	—	—	—	—	45	2 Feed	
				Gem.....	23.6	—	—	—	—	40	3 Feed	
				Titan.....	6.6	—	—	—	—	45	2 Feed	
				Tregal.....	3.8	—	—	—	—	44	2 Feed	
				Vantage.....	12.0	—	—	—	—	44	2 Feed	
				Velvon.....	18.6	—	—	—	—	40	3 Feed	
Necessary difference—6.6 bushels.												
MARTIN HOPKINS, BRATTON												
C.....	10	5	C	Plush.....	34.4	80	25	8.6	2.0	46	1 Feed	
				Gem.....	52.2	77	24	9.0	2.0	45	2 Feed	
				Titan.....	34.3	80	24	9.0	2.0	50	1 Feed	
				Tregal.....	35.6	79	25	8.6	2.0	44	2 Feed	
				Vantage.....	39.8	80	25	8.6	2.0	43	2 Feed	
				Velvon.....	37.4	79	24	9.0	2.0	45	2 Feed	
Necessary difference—6.8 bushels.												
LOWELL D. ERLANDSON, BRODERICK												
D.....	10	6	B.	Plush.....	18.2	85	23	9.3	1.3	39	3 Feed	
				Gem.....	22.5	86	22	9.0	1.3	42	3 Feed	
				Titan.....	20.2	88	22	9.3	1.3	46	1 Feed	
				Tregal.....	19.5	87	22	8.3	1.0	42	3 Feed	
				Vantage.....	20.9	85	23	9.0	1.3	40	3 Feed	
				Velvon.....	16.4	84	22	8.0	1.0	42	3 Feed	
No significant grain yield difference between varieties.												
ROSS S. FAWELL, GIRVIN												
C.....	10	7	B.	Plush.....	25.0	—	—	—	—	44	2 Feed	
				Gem.....	29.7	—	—	—	—	42	3 Feed	
				Titan.....	22.6	—	—	—	—	46	1 Feed	
				Tregal.....	22.8	—	—	—	—	46	1 Feed	
				Vantage.....	23.3	—	—	—	—	42	3 Feed	
				Velvon.....	26.0	—	—	—	—	45	2 Feed	
Necessary difference—3.7 bushels.												
WALTER S. CHILDS, SIMPSON												
C.....	10	8	C	Plush.....	29.8	—	31	8.0	2.0	47	1 Feed	
				Gem.....	28.6	—	31	8.0	2.0	45	2 Feed	
				Titan.....	25.7	—	31	8.0	2.0	47	1 Feed	
				Tregal.....	20.5	—	30	8.0	2.3	48	1 Feed	
				Vantage.....	34.8	—	35	8.0	2.3	48	1 Feed	
				Velvon.....	34.1	—	35	10.0	1.0	46	1 Feed	
Necessary difference—5.8 bushels.												
Tests discarded on account of damage by drought, pests, hail, or other causes.												
10		10	B	Walter M. Campbell, Tessier.								

WHEAT POOL DISTRICT 11

Area	Dist.	Sub- Dist.	Test desig- nation	Varieties	Yield bus. per acre	Days seed- ing to ripen- ing	Plant height in inches	Straw strength	Neck strength	Pounds per meas- ured bushel	Com- mercial grades	Grading remarks
BARBARA E. KACOR, KYLE												
B.....	11	1	B	Plush.....	46.2	—	—	—	—	45	2 Feed	
				Gem.....	55.3	—	—	—	—	43	2 Feed	
				Titan.....	41.0	—	—	—	—	47	1 Feed	
				Tregal.....	38.3	—	—	—	—	46	1 Feed	
				Vantage.....	41.9	—	—	—	—	45	2 Feed	
				Velvon.....	50.2	—	—	—	—	45	2 Feed	

Necessary difference—5.0 bushels.

W. JACK BRITTON, ESTON												
C.....	11	3	D	Plush.....	36.7	—	—	—	—	47	1 Feed	
				Gem.....	32.4	—	—	—	—	49	1 Feed	
				Titan.....	28.5	—	—	—	—	51	1 Feed	
				Tregal.....	33.1	—	—	—	—	49	1 Feed	
				Vantage.....	32.3	—	—	—	—	49	1 Feed	
				Velvon.....	36.8	—	—	—	—	48	1 Feed	

Necessary difference—4.1 bushels.

JACK PHARE, GLIDDEN												
B.....	11	3	E	Plush.....	46.5	89	22	10.0	1.0	46	1 Feed	
				Gem.....	47.1	83	20	10.0	1.0	47	1 Feed	
				Titan.....	37.2	89	18	9.0	1.0	48	1 Feed	
				Tregal.....	45.4	89	19	10.0	1.0	47	1 Feed	
				Vantage.....	41.6	89	18	9.0	1.0	47	1 Feed	
				Velvon.....	44.0	89	19	9.0	1.0	46	1 Feed	

No significant grain yield difference between varieties.

STEWART H. LEWIS, KINDERSLEY												
B.....	11	6	B	Plush.....	29.7	87	20	7.3	1.3	44	2 Feed	
				Gem.....	29.9	88	21	8.6	2.3	42	3 Feed	
				Titan.....	24.8	88	21	7.6	2.3	45	2 Feed	
				Tregal.....	22.9	88	19	7.0	1.3	44	2 Feed	
				Vantage.....	29.2	88	20	7.3	2.3	45	2 Feed	
				Velvon.....	31.5	88	20	7.3	2.3	42	3 Feed	

No significant grain yield difference between varieties.

ELSIE SUNDBY, FUSILIER												
A.....	11	10	A	Plush.....	10.6	—	—	—	—	43	2 Feed	
				Gem.....	7.3	—	—	—	—	41	3 Feed	
				Titan.....	7.8	—	—	—	—	44	2 Feed	
				Tregal.....	5.8	—	—	—	—	44	2 Feed	
				Vantage.....	7.2	—	—	—	—	43	2 Feed	
				Velvon.....	8.3	—	—	—	—	41	3 Feed	

No significant grain yield difference between varieties.

Tests discarded on account of damage by drought, pests, hail, or other causes.

11	2	B	Grant A. Calwell, Elrose.
11	8	C	Randall Nelson, Ruthilda.
11	8	D	Peter W. Siemens, Fiske.

WHEAT POOL DISTRICT 12

HELEN A. FOX, LANDIS												
D.....	12	3	C.	Plush.....	3.3	—	—	—	—	38	3 Feed	
				Gem.....	11.8	—	—	—	—	37	3 Feed	
				Titan.....	4.0	—	—	—	—	40	3 Feed	
				Tregal.....	5.2	—	—	—	—	38	3 Feed	
				Vantage.....	4.4	—	—	—	—	37	3 Feed	
				Velvon.....	6.2	—	—	—	—	39	3 Feed	

Necessary difference—1.8 bushels.

THOMAS J. BARTH, TAKO												
D.....	12	5	B.	Plush.....	8.0	—	—	—	—	39	3 Feed	
				Gem.....	7.1	—	—	—	—	41	3 Feed	
				Titan.....	7.2	—	—	—	—	46	1 Feed	
				Tregal.....	8.9	—	—	—	—	46	1 Feed	
				Vantage.....	13.4	—	—	—	—	45	2 Feed	
				Velvon.....	8.5	—	—	—	—	44	2 Feed	

No significant grain yield difference between varieties.

Wheat Pool District 12—Continued

Area	Dist.	Sub-Dist.	Test designation	Varieties	Yield bus. per acre	Days seed-ing to ripen-ing	Plant height in inches	Straw strength	Neck strength	Pounds per meas-ured bushel	Com-mercial grades	Grading remarks
NORBERT LEIBEL, DENZIL												
D.....	12	6	B	Plush.....	14.1	85	14	9.3	2.0	42	3 Feed	
				Gem.....	13.0	86	15	10.0	1.0	42	3 Feed	
				Titan.....	14.2	86	13	9.6	3.0	44	2 Feed	
				Tregal.....	16.1	82	16	10.0	3.0	43	2 Feed	
				Vantage.....	17.0	84	14	10.0	1.3	44	2 Feed	
				Velvon.....	13.0	85	15	9.3	1.0	44	2 Feed	
No significant grain yield difference between varieties.												

J. JACK McLEAN, UNITY												
D.....	12	7	B	Plush.....	6.4	88	16	9.0	1.0	43	2 Feed	
				Gem.....	9.3	76	10	8.0	2.0	39	3 Feed	
				Titan.....	5.1	80	10	8.0	2.0	43	2 Feed	
				Tregal.....	11.2	84	14	8.0	2.0	45	2 Feed	
				Vantage.....	7.6	78	14	9.0	2.0	43	2 Feed	
				Velvon.....	5.2	85	12	8.0	2.0	41	3 Feed	
No significant grain yield difference between varieties.												

DONALD R. GRANT, CUTKNIFE												
D.....	12	9	B	Plush.....	5.6	97	18	6.6	2.0	44	2 Feed	
				Gem.....	7.9	92	18	7.3	1.3	42	3 Feed	
				Titan.....	5.3	97	16	6.0	2.0	46	1 Feed	
				Tregal.....	6.2	97	16	7.0	2.0	45	2 Feed	
				Vantage.....	6.6	97	17	7.6	2.0	45	2 Feed	
				Velvon.....	6.3	97	17	6.6	1.0	43	2 Feed	
Damaged by hail.												

Tests discarded on account of damage by drought, pests, hail, or other causes.

12	1	C	Bobby P. Sarvas, Keppel.
12	1	D	T. A. King, Biggar.
12	2	B	Edward H. Ferguson, Traynor.
12	4	B	George Knorr, Kerrobert.

WHEAT POOL DISTRICT 13

ALBERT G. WARKENTIN, DUNDURN												
D.....	13	3	C	Plush.....	21.8	90	24	9.3	1.3	42	3 Feed	
				Gem.....	26.4	87	26	10.0	1.0	46	1 Feed	
				Titan.....	24.1	90	24	9.0	1.6	46	1 Feed	
				Tregal.....	24.2	90	24	9.3	2.0	47	1 Feed	
				Vantage.....	21.6	91	23	9.0	1.6	40	3 Feed	
				Velvon.....	22.5	91	23	9.3	1.0	45	2 Feed	
No significant grain yield difference between varieties.												

CARL H. DEDICK, BRADWELL												
D.....	13	4	B	Plush.....	12.8	—	—	—	—	41	3 Feed	
				Gem.....	14.8	—	—	—	—	43	2 Feed	
				Titan.....	14.5	—	—	—	—	46	1 Feed	
				Tregal.....	17.5	—	—	—	—	43	2 Feed	
				Vantage.....	16.6	—	—	—	—	41	3 Feed	
				Velvon.....	15.6	—	—	—	—	42	3 Feed	
No significant grain yield difference between varieties.												

WALTER SAFINUK, COLONSAY												
D.....	13	4	C	Plush.....	19.5	84	13	9.0	1.0	46	1 Feed	
				Gem.....	—	83	16	10.0	2.0	—	—	
				Titan.....	12.4	84	14	9.6	3.0	47	1 Feed	
				Tregal.....	8.5	85	15	10.0	1.6	44	2 Feed	
				Vantage.....	18.3	84	15	10.0	2.0	43	2 Feed	
				Velvon.....	15.0	84	16	10.0	1.0	47	1 Feed	
Badly damaged by shattering.												

GERALD LE PAGE, VONDA												
D.....	13	8	B	Plush.....	19.3	—	20	9.0	3.0	42	3 Feed	
				Gem.....	26.4	—	20	9.0	2.0	39	3 Feed	
				Titan.....	28.1	—	18	8.6	1.0	46	1 Feed	
				Tregal.....	25.1	—	18	9.0	1.0	43	2 Feed	
				Vantage.....	20.0	—	19	10.0	1.0	39	3 Feed	
				Velvon.....	18.7	—	20	9.0	1.0	43	2 Feed	
No significant grain yield difference between varieties.												

Tests discarded on account of damage by drought, pests, hail, or other causes.

13	2	B	William H. Brotchie, Young.
13	3	B	Lorne E. Freedon, Dundurn.

FLAX TESTS

DESCRIPTION OF VARIETIES

Dakota was developed by the United States Department of Agriculture and the North Dakota Agricultural Experiment Station from the cross Renew X Bison. It is resistant to rust and wilt. Dakota has blue blossoms, and medium sized brown seeds which produce good quality oil.

Victory was produced by selection at the North Dakota Agricultural Experiment Station. A selection from 5585 X Argentine was crossed with Smoky Golden and Victory was selected from the result. Victory has white blossoms, and brown seeds which produce a high percentage of good quality oil. It is resistant to rust and wilt.

Royal was originated by selection from Crown at the University of Saskatchewan. It is moderately resistant to wilt and rust. Royal has blue blossoms, and brown seeds which produce a high percentage of oil.

Rocket was developed from the cross Argentine 8C X Redwing at the Central Experimental Farm, Ottawa. Rocket has blue blossoms and brown seeds which produce a high percentage of good quality oil. It is resistant to rust but slightly susceptible to wilt.

TABLE NO. 46.—SUMMARIZED RESULTS OF ALL FLAX TESTS

	Dakota	Victory	Royal	Rocket
Yield in bushels per acre.....	13.9	12.7	12.9	13.8
Days from seeding to ripening.....	96.7	97.0	97.8	97.1
Height of plants in inches.....	19.5	19.4	20.4	19.7
Bushel weight in pounds.....	54.5	53.9	54.6	53.8
Commercial grades in percentage:				
1 C.W.....	100.0	100.0	100.0	92.3
2 C.W.....	—	—	—	7.7
Necessary difference—1.0 bushel.				

Table No. 46. Flax tests were conducted throughout Wheat Pool Districts 1 and 2 in the south-eastern corner of the Province. For analysis, the results of the twelve tests which proved entirely satisfactory were averaged as one group. The averages, shown in the above table, indicate that **Dakota** and **Rocket** were practically equal in yielding ability. Both varieties outyielded **Victory** significantly and **Dakota** exceeded **Royal** by a difference which equalled the necessary difference for the area. **Dakota** and **Rocket** were practically equal in height but the former variety proved superior in bushel weight and grades and ripened comparatively early. **Royal** ranked third in yield. It excelled in bushel weight and height but was slightly later than the other varieties. **Victory** almost equalled **Royal** in yield and proved earlier than the latter variety, but was slightly inferior in both height and bushel weight.

Individual Summarized Results of All Tests—Flax

WHEAT POOL DISTRICT 1

Dist.	Sub-dist.	Test Designation	Varieties	Yield bus. per acre	Days Seed- ing to ripening	Plant height in inches	Pounds per measured bushel	Com- mercial grades	Grading remarks
MAURICE W. CHESTER, CARIEVALE									
1	1	C	Dakota.....	19.6	98	—	55	1 C.W.	
			Victory.....	16.6	98	—	55	1 C.W.	
			Royal.....	16.6	98	—	54	1 C.W.	
			Rocket.....	19.0	98	—	54	1 C.W.	
Necessary difference—1.2 bushels.									
HARVEY MARCHAND, STORTHOAKS									
1	2	C	Dakota.....	11.9	—	—	56	1 C.W.	
			Victory.....	12.1	—	—	56	1 C.W.	
			Royal.....	12.9	—	—	56	1 C.W.	
			Rocket.....	12.7	—	—	55	1 C.W.	
No significant grain yield difference between varieties.									
MICHAEL BARTOLF, OXBOW									
1	3	C	Dakota.....	27.9	111	28	55	1 C.W.	
			Victory.....	24.5	111	28	54	1 C.W.	
			Royal.....	29.4	107	30	55	1 C.W.	
			Rocket.....	33.1	111	28	55	1 C.W.	
Necessary difference—4.3 bushels.									
ELMER C. LAFRENTZ, BIENFAIT									
1	4	C	Dakota.....	14.2	—	—	53	1 C.W.	
			Victory.....	15.6	—	—	52	1 C.W.	
			Royal.....	12.9	—	—	53	1 C.W.	
			Rocket.....	14.7	—	—	54	1 C.W.	
No significant grain yield difference between varieties.									
ANNA M. RAYNER, MACOUN									
1	5	C	Dakota.....	9.8	103	20	55	1 C.W.	
			Victory.....	7.7	103	21	54	1 C.W.	
			Royal.....	9.5	100	22	55	1 C.W.	
			Rocket.....	9.6	101	21	54	1 C.W.	
Necessary difference—1.3 bushels.									
VICTOR I. OLSON, TORQUAY									
1	6	C	Dakota.....	8.7	—	—	56	1 C.W.	
			Victory.....	9.0	—	—	55	1 C.W.	
			Royal.....	9.5	—	—	55	1 C.W.	
			Rocket.....	8.8	—	—	55	1 C.W.	
No significant grain yield difference between varieties.									
FRANKLIN E. FRIJOUF, MACOUN									
1	6	D	Dakota.....	10.7	92	23	55	1 C.W.	
			Victory.....	8.6	93	23	54	1 C.W.	
			Royal.....	7.7	92	24	55	1 C.W.	
			Rocket.....	8.5	92	24	54	1 C.W.	
Necessary difference—1.8 bushels.									
ELMER L. OLIVER, COLGATE									
1	7	C	Dakota.....	14.5	—	—	52	1 C.W.	
			Victory.....	14.4	—	—	51	1 C.W.	
			Royal.....	13.8	—	—	54	1 C.W.	
			Rocket.....	12.6	—	—	50	2 C.W.	
No significant grain yield difference between varieties.									
HAROLD J. GERHARDT, McTAGGART									
1	8	B	Dakota.....	18.2	97	16	55	1 C.W.	
			Victory.....	18.6	100	16	54	1 C.W.	
			Royal.....	17.4	94	17	55	1 C.W.	
			Rocket.....	17.7	97	16	54	1 C.W.	
No significant grain yield difference between varieties.									

Wheat Pool District 1—Continued

Dist.	Sub. dist.	Test Designation	Varieties	Yield bus. per acre	Days Seed- ing to ripening	Plant height in inches	Pounds per me re bushel	Com- mercial grades	Grading remarks
M. ERNEST WILKES, FORGET									
1	9	B	Dakota.....	5.5	—	—	53	1 C.W.	
			Victory.....	7.7	—	—	53	1 C.W.	
			Royal.....	4.9	—	—	53	1 C.W.	
			Rocket.....	5.7	—	—	53	1 C.W.	
Samples incomplete.									

WHEAT POOL DISTRICT 2

JAY A. LARSEN, RADVILLE									
2	1	C	Dakota.....	6.2	86	19	54	1 C.W.	
			Victory.....	5.3	89	18	54	1 C.W.	
			Royal.....	4.1	93	20	55	1 C.W.	
			Rocket.....	7.8	86	19	54	1 C.W.	
Necessary difference—1.5 bushels.									

R. HARVEY CHESNEY, STRATHALLEN									
2	5	B	Dakota.....	2.2	101	18	(A)	(E) 2 C.W.	
			Victory.....	1.7	98	18	(A)	(E) 1 C.W.	
			Royal.....	1.8	103	18	(A)	(E) 2 C.W.	
			Rocket.....	2.3	103	18	(A)	(E) 1 C.W.	
Badly damaged.									

DONALD A. BROEDER, MAXSTONE									
2	7	B	Dakota.....	11.8	98	14	55	1 C.W.	
			Victory.....	8.0	100	13	54	1 C.W.	
			Royal.....	8.0	101	14	54	1 C.W.	
			Rocket.....	10.1	100	14	53	1 C.W.	
Necessary difference—1.0 bushel.									

ROBERT A. PARK, DAHINDA									
2	9	C	Dakota.....	13.4	84	18	55	1 C.W.	
			Victory.....	12.0	81	18	55	1 C.W.	
			Royal.....	12.8	92	18	56	1 C.W.	
			Rocket.....	11.9	86	18	54	1 C.W.	
Necessary difference—1.0 bushel.									

Tests discarded on account of damage by drought, pests, hail, or other causes.

2	8	B	James A. Hall, Crane Valley.						
2	8	C	Mike Hovanes, Ormiston.						
(A)=Insufficient to calculate bushel weight.									
(E)=Estimated grade.									

CONCLUSIONS

For many Saskatchewan farmers the year 1947 proved extremely disappointing. Generally, spring came very late. Seeding was delayed in many areas due to flood conditions, wet weather and heavy frosts. Although later than in a normal year, crops made relatively good progress during June except in parts of the north where conditions were unusually dry. Extremely high temperatures throughout most of July, combined with inadequate precipitation, caused rapid deterioration and over a wide area the prospects of good yields disappeared. The sharp decline in this month is reflected by the average wheat condition figure as shown in the Saskatchewan Pool Elevators crop reports. This figure dropped fifty-four points during July, representing a reduction of approximately eight bushels per acre in the prospective wheat yield over the entire Province. The final outturn of the Saskatchewan crop ranged from good yields in some areas to complete failures in others. Although generally disappointing, the 1947 season provided a good opportunity for gathering accurate information regarding the reactions of the new varieties to a wide range of climatic conditions.

To the farmer, the Saskatchewan Wheat Pool variety testing program provides assistance in choosing suitable varieties for use in the field. To the scientist and plant breeder, it furnishes reliable information concerning areas from which no other experimental data are available. In this regard, it should be mentioned that the results of tests conducted each year are supplied to the Saskatchewan Cereal Variety Committee and are used, together with information from the University of Saskatchewan and the Dominion Experimental Stations, in formulating the official variety recommendations for Saskatchewan.

In addition to their scientific value, these variety tests provide an opportunity for farm boys and girls to gain valuable practical training. The complex nature of the work creates in every Junior Co-operator an ability to follow written instructions. In addition, these young people are given an opportunity to observe the differences between varieties and to realize the importance of choosing high quality seed for use in the field.

The success of this program is due largely to the fact that tests are distributed over the entire Province, giving results which are representative of many different conditions of soil and climate. This widespread distribution is made possible only by the interest and support of the Junior Co-operators who supervise the individual tests.

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